

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions

A. Emission Units S2.001 and PF1.009 location North 4,536.2 km, East 554.6 km, UTM (Zone 11)

#### A. System 01 - Mill #1 Lime Silo

S 2.001 Lime silo, 120 ton, loading

PF 1.009 Lime silo, 120 ton, discharge to screw conveyor

PF 1.009.1 Lime silo, 120 ton, screw conveyor transfer to mill conveyor

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from \$2.001 will be ducted to a control system consisting of a vent filter with 100% capture.
- b. Emissions from PF1.009 will be controlled by an enclosure that completely encloses this transfer point and is sealed.
- c. Emissions from **PF1.009.1** will be controlled by a conveyor cover, which extends approximately 2/3 of the way around the conveyor with openings at the top and bottom of the cover.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **\$2.001**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of the vent filter, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.176** pound per hour, nor more than **0.020** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.176** pound per hour, nor more than **0.020** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from S2.001 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **\$2.001** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.009**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.009**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.004** pound per hour, nor more than **0.015** ton per year, based on a 12-month rolling period
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.004** pound per hour, nor more than **0.015** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.009 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.009** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- On and after the date of startup of **PF1.009.1**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.009.1**, the following pollutants in excess of the following specified limits:
  - 1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.020** pound per hour, nor more than **0.075** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.020** pound per hour, nor more than **0.075** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.009.1 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from PF1.009.1 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable loading rate for \$2.001 will not exceed 65.0 tons of lime per any one-hour period.
- b. The maximum allowable throughput rate for **PF1.009 and PF1.009.1** will not exceed **2.0** tons of lime per any one-hour period, each.
- c. Total annual throughput for **S2.001**, **PF1.009** and **PF1.009.1** will not exceed **15,000** tons of lime per year each, based on a 12-month rolling period.
- d. <u>Hours</u>
  - **S2.001**, **PF1.009** and **PF1.009.1** may operate **8,760** hours per year, each.

# **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

- A. Emission Units S2.001 and PF1.009 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> <u>Monitoring, Recordkeeping, Reporting and Compliance</u>

On and after the date of startup, Permittee will:

- Monitor and record the amount of lime loaded into \$2.001 each day loading occurs. The amount of lime will be based on purchasing receipts.
- b. Monitor and record the hours of operation for **\$2.001** each day loading occurs.
- c. Monitor and record the amount of lime discharged from PF1.009 and PF1.009.1 each on a monthly basis. The amount of lime will be based on purchasing receipts and measurements of the level of lime in the silo at the beginning and end of the month. Level measurements will be made with sonic level detectors.
- Monitor and record the hours of operation of PF1.009 and PF1.009.1 each on a monthly basis.
- e. Conduct a quarterly inspection of the vent filter on **\$2.001** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter material and housing) and any corrective actions taken.
- f. Conduct a monthly inspection of the enclosure on **PF1.009** and the cover on **PF1.009.1** each and record the results and any corrective action taken.
- g. Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.001** and from **PF1.009** and **PF1.009.1** each, once per month. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.001, PF1.009** and **PF1.009.1** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.001, PF1.009** and **PF1.009.1** not operating or due to poor weather conditions.
- h. The hourly throughput rate in tons per hour for **PF1.009 and PF1.009.1** each will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- i. The hourly throughput rate in tons per hour for **S2.001** will be determined from the total daily throughput and the total daily hours of operation recorded above.
- j. Record the monthly loading rate of **\$2.001** in tons per calendar month, and the corresponding annual loading rate in tons per year, based on a 12-month rolling period. The monthly loading rate will be determined at the end of each calendar month as the sum of each total daily loading rate as determined in 4.a above for each day of the calendar month. The annual loading rate will be determined at the end of each calendar month as the sum of the monthly loading rates for the previous 12 months to determine compliance with 3.c of this Section.
- k. Record the monthly discharge rate of **PF1.009 and PF1.009.1** each in tons per calendar month, and the corresponding annual discharge rate in tons per year, based on a 12-month rolling period. The monthly discharge rate will be determined at the end of each calendar month. The annual discharge rate will be determined at the end of each calendar month as the sum of the monthly discharge rates for the previous 12 months to determine compliance with 3.c of this Section.
- I. The required monitoring established in a. through k. above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$\frac{52.001}{1.009}\$ and <b>PF1.009.1** each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily and monthly throughput rate of lime, in tons, for the corresponding date.
  - (iii) The total daily and monthly hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of lime, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rates and the total daily and monthly hours of operation recorded in a through d. above.
  - (v) Results and condition of the quarterly inspection of the vent filter on **S2.001**, and any corrective actions taken.
  - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Shielded Requirements

Compliance with conditions A.1 through A.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

### **BUREAU OF AIR POLLUTION CONTROL**

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### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

B. Emission Units S2.080, PF1.027, and PF1.028 location North 4,533.3 km, East 547.2 km, UTM (Zone 11)

#### B. System 02 - Boulder Valley Water Treatment Plant Lime Silo

S 2.080 Lime silo, 500 ton, loading

PF 1.027 Lime silo, 500 ton, discharge to screw conveyor

PF 1.028 Lime silo, 500 ton, screw conveyor transfer to mill conveyor

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from \$2.080 will be ducted to a control system consisting of a vent filter with 100% capture.
- b. Emissions from PF1.027 will be controlled by an enclosure that completely encloses this transfer point and is sealed.
- c. Emissions from **PF1.028** will be controlled by a conveyor cover, which extends approximately 2/3 of the way around the conveyor with openings at the top and bottom of the cover.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits

- a. On and after the date of startup of **\$2.080**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of the vent filter, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.176** pound per hour, nor more than **0.030** ton per year, based on a 12-month rolling period
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.176** pound per hour, nor more than **0.030** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from S2.080 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from \$2.080 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.027**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.027**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.005 pound per hour, nor more than 0.022 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.005** pound per hour, nor more than **0.022** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.027 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.027** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- c. On and after the date of startup of **PF1.028**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.028**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.026** pound per hour, nor more than **0.113** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.026** pounds per hour, nor more than **0.113** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.028 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.028** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable loading rate for \$2.080 will not exceed 65.0 tons of lime per any one-hour period.
- b. The maximum allowable throughput rate for PF1.027 and PF1.028 will not exceed 2.6 tons of lime per any one-hour period, each.
- c. Total annual throughput for **S2.080**, **PF1.027** and **PF1.028** will not exceed **22,500** tons of lime per year each, based on a 12-month rolling period.
- d. Hours
  - S2.080, PF1.027 and PF1.028 may operate 8,760 hours per year, each.

### **BUREAU OF AIR POLLUTION CONTROL**

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# Section VI. Specific Operating Conditions (continued)

- B. Emission Units S2.080, PF1.027 and PF1.028 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
    <u>Monitoring, Recordkeeping, Reporting and Compliance</u>

On and after the date of startup, Permittee will:

- Monitor and record the amount of lime loaded into \$2.080 each day loading occurs. The amount of lime will be based on purchasing receipts.
- b. Monitor and record the hours of operation for **\$2.080** each day loading occurs.
- c. Monitor and record the amount of lime discharged from **PF1.027** and **PF1.028** each on a monthly basis. The amount of lime will be based on purchasing receipts and measurements of the level of lime in the silo at the beginning and end of the month. Level measurements will be made with sonic level detectors.
- d. Monitor and record the hours of operation of PF1.027 and PF1.028 each on a monthly basis.
- e. Conduct a quarterly inspection of the vent filter on **S2.080** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter material and housing) and any corrective actions taken.
- f. Conduct a monthly inspection of the enclosure on **PF1.027** and the cover on **PF1.028** each and record the results and any corrective action taken.
- g. Conduct and record an assessment of the visible emissions from the exhaust vent of \$2.080 and from PF1.027 and PF1.028 each, once per month. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while \$2.080, PF1.027 and PF1.028 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to \$2.080, PF1.027 and PF1.028 not operating or due to poor weather conditions.
- h. The hourly throughput rate in tons per hour for **PF1.027** and **PF1.028** each will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- The hourly throughput rate in tons per hour for \$2.080 will be determined from the total daily throughput and the total daily hours of operation recorded above.
- j. Record the monthly loading rate of **\$2.080** in tons per calendar month, and the corresponding annual loading rate in tons per year, based on a 12-month rolling period. The monthly loading rate will be determined at the end of each calendar month as the sum of each total daily loading rate as determined in 4.a above for each day of the calendar month. The annual loading rate will be determined at the end of each calendar month as the sum of the monthly loading rates for the previous 12 months to determine compliance with 3.c of this Section.
- k. Record the monthly discharge rate of **PF1.027 and PF1.028** each in tons per calendar month, and the corresponding annual discharge rate in tons per year, based on a 12-month rolling period. The monthly discharge rate will be determined at the end of each calendar month. The annual discharge rate will be determined at the end of each calendar month as the sum of the monthly discharge rates for the previous 12 months to determine compliance with 3.c of this Section.
- I. The required monitoring established in a. through k. above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.080**, **PF1.027** and **PF1.028** each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily and monthly throughput rate of lime, in tons, for the corresponding date.
  - (iii) The total daily and monthly hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of lime, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rates and the total daily and monthly hours of operation recorded in a through d. above.
  - (v) Results and condition of the quarterly inspection of the vent filter on \$2.080, and any corrective actions taken. Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Shielded Requirements

Compliance with conditions B.1 through B.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

## **BUREAU OF AIR POLLUTION CONTROL**

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# Section VI. Specific Operating Conditions (continued)

C. Emission Unit S2.021 (Removed from the permit as part of the renewal process)

C. System 03 - Removed

S 2.021 Boiler No. 1; Cleaver-Brooks model No. D-68-LH; S/N W-3515

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# Section VI. Specific Operating Conditions (continued)

D. Emission Units S2.022 and S2.023 location North 4,536.0 km, East 554.8 km, UTM (Zone 11)

#### D. System 04 - Boilers #2 and #3 Autoclave Circuit

S 2.022 Boiler #2, Foster Wheeler model No. AG-5110B S 2.023 Boiler #3, Foster Wheeler model No. AG-5110B

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

Control system consisting of operating the Coen low-NO<sub>x</sub> burners on **S2.022 and S2.023** in accordance with the manufacturer's specifications and in a manner that minimizes emissions.

### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

On and after the date of startup of **S2.022 and S2.023**, Permittee will not discharge nor cause the discharge into the atmosphere from the exhaust stacks of **S2.022 and S2.023**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 1.10 pounds per hour, each, nor more than 9.40 tons per year, combined, based on a 12-month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **1.10** pounds per hour, each, nor more than **9.40** tons per year, combined, based on a 12-month rolling period.
- c. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **0.025** pound per hour, each, nor more than **0.22** ton per year, combined, based on a 12-month rolling period.
- d. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed **6.72** pounds per hour, each, nor more than **57.45** tons per year, combined, based on a 12-month rolling period.
- e. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere will not exceed **4.32** pounds per hour, each, nor more than **36.93** tons per year, combined, based on a 12-month rolling period.
- f. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed **0.325** pound per hour, each, nor more than **2.78** tons per year, combined, based on a 12-month rolling period.
- g. NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stacks of S2.022 and S2.023 will not equal or exceed 20% in accordance with NAC 445B.22017.
- h. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stacks of **S2.022** and **S2.023** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- S2.022 and S2.023 may combust either propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
- b. The maximum fuel consumption rate for **S2.022 and S2.023** will not exceed **1,310** gallons of propane or will not exceed 120,000 cubic feet of pipeline quality natural gas per any one-hour period, each, nor more than **22,400,000** gallons of propane or nor more than **2,051,840,000** cubic feet of pipeline quality natural gas per year, combined, based on a 12-month rolling period.
- c. The maximum heat input rate for \$2.022 and \$2.023 will not exceed 120.0 million Btu's per hour, each.
- d. Hours
  - S2.022 and S2.023 may operate 8,760 hours per year, each.

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# Section VI. Specific Operating Conditions (continued)

- D. Emission Units S2.022 and S2.023 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>

    <u>Monitoring, Recordkeeping, Reporting and Compliance</u>
    On and after the date of startup, Permittee will:
    - Monitor and record the quantity and type of fuel combusted in \$2.022 and \$2.023, separately, on a daily basis.
    - b. Monitor and record the hours of operation of \$2.022 and \$2.023, separately, on a daily basis.
    - c. Conduct and record an assessment of the visible emissions (excluding water vapor) from \$2.022 and \$2.023 each, once per month. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while \$2.022 and \$2.023 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to \$2.022 and \$2.023 not operating or due to poor weather conditions.
    - d. Conduct and record a Method 5 or 17 (with back-half catch) source test for PM, Method 201A and 202 source tests for PM<sub>10</sub>, a Method 7E source test for NO<sub>x</sub>, a Method 25 source test for VOC, and a Method 10 source test for CO on the exhaust stacks of S2.022 and S2.023 each consisting of three valid runs, per source test. The compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests
    - e. Permittee may substitute the Method 5 or 17 test (with back-half catch) for the Method 201A and 202 tests. All particulate captured in the Method 5 or 17 test (with back-half catch) will be considered PM<sub>10</sub> for compliance demonstration purposes.
    - f. The hourly fuel consumption rate in gallons per hour of propane and cubic feet per hour of pipeline quality natural gas for **S2.022** and **S2.023** will be determined from the total daily fuel consumption and the total daily hours of operation recorded above.
    - g. The hourly heat input rate in millions of Btu's per hour for **\$2.022** and **\$2.023** each will be determined from the total daily heat input and the total daily hours of operation recorded above.
    - h. Record the monthly fuel consumption rate in gallons of propane or cubic feet of pipeline quality natural gas per calendar month, and the corresponding annual fuel consumption rate in gallons of propane or cubic feet of pipeline quality natural gas. The monthly fuel consumption rate will be determined at the end of each calendar month as the sum of each total daily fuel consumption rate as determined in 4.a above for each day of the calendar month. The annual fuel consumption rate will be determined at the end of each calendar month as the sum of the monthly fuel consumption rates, for the previous 12 months, to determine compliance with 3.b of this Section
    - The compliance tests required for NO<sub>x</sub> and CO under D.4.d of this Section will be conducted within 60 days of switching the fuel combusted in **S2.022** and/or **S2.023** as allowed under D.3.a of this Section.
    - Reporting Permittee will notify the Director within 15 days of switching the fuels combusted in S2.022 and/or S2.023 as allowed under D.3.a. of this Section.
    - k. The required monitoring established in a. through j. above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.022 and S2.023** each, are operating:
      - The calendar date of any required monitoring.
      - ii) Maintain a contemporaneous log of each switching of fuels combusted in **S2.022 and S2.023**. The log must contain, at a minimum, the date and time of each switching of fuels combusted in **S2.022 and S2.023**.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The total daily fuel consumption rate of gallons of propane or cubic feet of pipeline quality natural gas, for the corresponding date.
      - (v) The corresponding average hourly fuel consumption rate of gallons of propane or cubic feet of pipeline quality natural gas. The average hourly fuel consumption rate will be determined from the daily fuel consumption rate and the total daily hours of operation recorded in a. and b. above.
      - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

**Shielded Requirements** 

Compliance with conditions D.1 through D.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

445B.2203 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

E. Emission Unit S2.024 location North 4,536.0 km, East 554.8 km, UTM (Zone 11)

#### E. System 05 - Boiler #4 Autoclave Circuit

S 2.024 Boiler #4, Foster Wheeler model No. AG-5175C

### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

On and after the date of startup of **S2.024**, Permittee will control NO<sub>x</sub> emissions from **S2.024** with a selective catalytic reduction (SCR) system at all times during which **S2.024** operates with the exception of the boiler and catalyst warm-up period. For purposes of this requirement, boiler and catalyst warm-up will be defined as that period of time during which the boiler is brought up to steady-state temperature and pressure operating requirements. Boiler and catalyst warm-up will not exceed an 8-hour duration.

### 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

**Emission Limits** 

On and after the date of startup of **S2.024**, Permittee will not discharge nor cause the discharge into the atmosphere from the exhaust stack of **S2.024**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 2.38 pounds per hour, nor more than 10.43 tons per year, based on a 12-month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed 2.38 pounds per hour, nor more than 10.43 tons per year, based on a 12-month rolling period.
- c. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **0.047** pound per hour, nor more than **0.21** ton per year, based on a 12-month rolling period.
- d. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed **3.19** pounds per hour, nor more than **13.98** tons per year, based on a 12-month rolling period.
- e. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere will not exceed **10.53** pounds per hour, nor more than **46.11** tons per year, based on a 12-month rolling period.
- f. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed **3.10** pounds per hour, nor more than **13.56** tons per year, based on a 12-month rolling period.
- g. NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of S2.024 will not equal or exceed 20% in accordance with NAC 445B.22017.
- h. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stack of **\$2.024** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

### 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

- a. S2.024 may combust either propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
- b. The maximum fuel consumption rate for \$2.024 will not exceed 2,600 gallons of propane or will not exceed 238,160 cubic feet of pipeline quality natural gas per any one-hour period, nor more than 22,776,000 gallons or propane or nor more than 2,086,281,600 cubic feet of pipeline quality natural gas per year, based on a 12-month rolling period.
- c. The maximum heat input rate for \$2.024 will not exceed 238.16 million Btu's per hour.
- d. Hours
  - **S2.024** may operate a total of **8,760** hours per year.

# **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

- E. Emission Unit S2.024 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> 40 CFR Part 64 <u>Compliance Assurance Monitoring Program</u> Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of startup, Permittee will:

- a. Monitor and record the quantity and type of fuel combusted in **\$2.024** on a daily basis.
- Monitor and record the hours of operation of \$2.024 on a daily basis.
- c. Monitor and record the boiler and SCR warm-up periods (dates and times).
- d. Install, calibrate, operate and maintain a device for the measurement of the catalyst temperature and ammonia flow rate for the SCR system located on **\$2.024**.
- e. Conduct and record a reading of the catalyst temperature and ammonia flow rate, <u>based on a one-hour period</u>, each day that **S2.024** is in operation, excluding SCR warm-up periods. Record any monitored excursions from the indicator range and record any corrective actions taken.
- f. The indicator range for the catalyst temperature shall be between 500.0 and 770.0 degrees Fahrenheit. The indicator range for the ammonia flow rate shall be between **4.1** and **70.0** pounds of ammonia per hour. Excursions shall be defined as any time the catalyst temperature or ammonia flow rate, based on a one-hour period, fall outside these indicator ranges, excluding SCR warm-up periods.
- Conduct and record a catalyst activity test on a representative sample of catalyst annually.
- Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of \$2.024 once per month. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while \$2.024 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to \$2.024 not operating or due to poor weather conditions.
- i. Conduct and record a Method 5 or 17 (with back-half catch) source test for PM, Method 201A and 202 source tests for PM<sub>10</sub>, a Method 25 for VOC and a Method 10 source test for CO on the exhaust stack of **S2.024** consisting of three valid runs, per source test. **The PM**, **PM**<sub>10</sub>, **VOC**, and **CO** compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests. Conduct and record a Method 7E source test for NO<sub>x</sub> on the exhaust stack of **S2.024** consisting of three valid runs, per source test. **The Method 7E compliance test will be conducted on an annual basis with no more than one year and 90 days between compliance tests.**
- j. Permittee may substitute the Method 5 or 17 test (with back-half catch) for the Method 201A and 202 tests. All particulate captured in the Method 5 or 17 test (with back-half catch) will be considered PM<sub>10</sub> for compliance demonstration purposes.
- k. The hourly fuel consumption rate in gallons per hour of propane and cubic feet per hour of pipeline quality natural gas for **\$2.024** will be determined from the total daily fuel consumption rate and the total daily hours of operation recorded above.
- I. The hourly heat input rate in millions of Btu's per hour for **\$2.024** will be determined from the total daily heat input and the total daily hours of operation recorded above.
- m. The monthly fuel consumption rate in gallons or cubic feet per calendar month, and the corresponding annual fuel consumption rate in gallons or cubic feet. The monthly fuel consumption rate will be determined at the end of each calendar month as the sum of each total daily fuel consumption rate as determined in 4.a above for each day of the calendar month. The annual fuel consumption rate will be determined at the end of each calendar month as the sum of the monthly fuel consumption rates, for the previous 12 months, to determine compliance with 3.b of this Section.
- n. The compliance source tests required for NO<sub>x</sub> and CO under E.4.i. of this Section will be conducted within 60 days of switching the fuel combusted in **S2.024** as allowed under E.3.a of this Section.
- Reporting Permittee will notify the Director within 15 days of switching the fuels combusted in \$2.024 as allowed under E.3.a. of this Section.
- p. The required monitoring established in a. through o. above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.024** is operating:
  - (i) The calendar date of any required monitoring.
  - (ii) Maintain a contemporaneous log of each switching of fuels combusted in **S2.024**. The log must contain, at a minimum, the date and time of each switching of fuels combusted in **S2.024**.
  - (iii) The total daily hours of operation for the corresponding date.
  - (iv) The total daily fuel consumption rate of gallons of propane or cubic feet of pipeline quality natural gas, for the corresponding date.
  - (v) The corresponding average hourly fuel consumption rate of gallons of propane or cubic feet of pipeline quality natural gas. The average hourly fuel consumption rate will be determined from the daily fuel consumption rate and the total daily hours of operation recorded in a. and b. above.
  - (vi) Results of the one-hour period readings of catalyst temperature and ammonia flow rate for the SCR system for **\$2.024**, each day that **\$2.024** is in operation.
  - (vii) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

# **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

#### E. Emission Unit S2.024 (continued)

 NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Shielded Requirements</u>

Compliance with conditions E.1 through E.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

445B.2203 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

F. Emission Units S2.031.1 and PF1.021 location North 4,536.0 km, East 554.8 km, UTM (Zone 11)

#### F. System 06 - Autoclave Lime Silo #5

- S 2.031.1 Lime silo #5, 28 ton, loading
- PF 1.021.1 Lime silo #5, 28 ton, discharge to screw conveyor
- PF 1.021.2 Lime silo #5, 28 ton, screw conveyor transfer

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from **\$2.031.1** will be ducted to a control system consisting of a vent filter with 100% capture.
- b. Emissions from PF1.021.1 will be controlled by an enclosure that completely encloses this transfer point and is sealed.
- c. Emissions from **PF1.021.2** will be controlled by a conveyor cover, which extends approximately 2/3 of the way around the conveyor with openings at the top and bottom of the cover.

## 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### **Emission Limits**

- a. On and after the date of startup of \$2.031.1, Permittee will not discharge nor cause the discharge into the atmosphere from the exhaust stack of the vent filter, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.16** pound per hour, nor more than **0.003** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.16** pound per hour, nor more than **0.003** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **\$2.031.1** will not equal or exceed **20%** in accordance with NAC 445B 22017
  - 4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **S2.031.1** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.021.1**, Permittee will not discharge nor cause the discharge into the atmosphere from **PF1.021.1**, the following pollutants in excess of the following specified limits:
  - 1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.010** pound per hour, nor more than **0.002** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.010** pound per hour, nor more than **0.002** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.021.1 not exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF2.021.1** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- c. On and after the date of startup of **PF1.021.2**, Permittee will not discharge nor cause the discharge into the atmosphere from **PF1.021.2**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.050** pound per hour, nor more than **0.010** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.050** pound per hour, nor more than **0.010** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.021.2 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.021.2** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable loading rate for \$2.031.1 will not exceed 60.0 tons of lime per any one-hour period.
- The maximum allowable throughput rate for **PF1.021.1 and PF1.021.2** will not exceed **5.0** tons of lime per any one-hour period, each.
- c. Total annual throughput for S2.031.1, PF1.021.1 and PF1.021.2 will not exceed 2,000 tons of lime per year each, based on a 12-month rolling period.
- d. Hours
  - S2.031.1, PF1.021.1 and PF1.021.2 may operate 8,760 hours per year, each.

# **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

- F. Emission Units S2.031.1 and PF1.021 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> <u>Monitoring, Recordkeeping, Reporting and Compliance</u>
    - On and after the date of startup, Permittee will:
    - Monitor and record the amount of lime loaded into S2.031.1 each day loading occurs. The amount of lime will be based on purchasing receipts.
    - b. Monitor and record the hours of operation for **\$2.031.1** each day loading occurs.
    - c. Monitor and record the amount of lime discharged from **PF1.021.1** and **PF1.021.2** each on a monthly basis. The amount of lime will be based on purchasing receipts and measurements of the level of lime in the silo at the beginning and end of the month. Level measurements will be made with sonic level detectors.
    - d. Monitor and record the hours of operation of PF1.021.1 and PF1.021.2 each on a monthly basis.
    - e. Conduct a quarterly inspection of the vent filter on **S2.031.1** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter material and housing) and any corrective actions taken.
    - f. Conduct a monthly inspection of the enclosure on **PF1.021.1** and the cover on **PF1.021.2** each and record the results and any corrective action taken.
    - g. Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of \$2.031.1 and from PF1.021.1 and PF1.021.2 each, once per month. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while \$2.031.1, PF1.021.1 and PF1.021.2 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to \$2.031.1, PF1.021.1 and PF1.021.2 not operating or due to poor weather conditions.
    - h. The hourly throughput rate in tons per hour for **PF1.021.1** and **PF1.021.2** each will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
    - i. The hourly throughput rate in tons per hour for **\$2.031.1** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - j. Record the monthly loading rate of **\$2.031.1** in tons per calendar month, and the corresponding annual loading rate in tons per year, based on a 12-month rolling period. The monthly loading rate will be determined at the end of each calendar month as the sum of each total daily loading rate as determined in 4.a above for each day of the calendar month. The annual loading rate will be determined at the end of each calendar month as the sum of the monthly loading rates for the previous 12 months to determine compliance with 3.c of this Section.
    - k. Record the monthly discharge rate of **PF1.021.1** and **PF1.021.2** each in tons per calendar month, and the corresponding annual discharge rate in tons per year, based on a 12-month rolling period. The monthly discharge rate will be determined at the end of each calendar month. The annual discharge rate will be determined at the end of each calendar month as the sum of the monthly discharge rates for the previous 12 months to determine compliance with 3.c of this Section.
    - I. The required monitoring established in a. through k. above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.031.1**, **PF1.021.1** and **PF1.021.2** each, are operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily and monthly throughput rate of lime, in tons, for the corresponding date.
      - (iii) The total daily and monthly hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of lime, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in a. through d. above.
      - (v) Results and condition of the quarterly inspection of the vent filter on S2.031.1, and any corrective actions taken.
      - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions F.1 through F.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):



# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

Emission Units S2.002 and PF1.016 location North 4,536.1 km, East 554.7 km, UTM (Zone 11)

#### G. System 07 - Mill #2 Lime Silo

S 2.002 Lime silo, 120 ton, loading

PF 1.016 Lime silo, 120 ton, discharge to screw conveyor PF 1.016.1 Lime silo, 120 ton, screw conveyor transfer

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from **\$2.002** will be ducted to a control system consisting of a vent filter.
- Emissions from PF1.016 and PF1.016.1 will be controlled by enclosures.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Lim**

- a. On and after the date of startup of **\$2.002**, Permittee will not discharge nor cause the discharge into the atmosphere from the exhaust stack of **\$2.002**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.16** pound per hour, nor more than **0.12** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.16** pound per hour, nor more than **0.12** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **S2.002** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **\$2.002** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.016**, Permittee will not discharge nor cause the discharge into the atmosphere from **PF1.016**, the following pollutants in excess of the following specified limits:
  - (1) NAČ 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.040** pound per hour, nor more than **0.090** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.040** pound per hour, nor more than **0.090** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.016** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.016** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- c. On and after the date of startup of PF1.016.1, Permittee will not discharge nor cause the discharge into the atmosphere from PF1.016.1, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.20** pound per hour, nor more than **0.45** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.20** pound per hour, nor more than **0.45** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.016.1** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.016.1** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable loading rate for \$2.002 will not exceed 60.0 tons of lime per any one-hour period.
- b. The maximum allowable throughput rate for PF1.016 and PF1.016.1 will not exceed 20.0 tons of lime per any one-hour period, each.
- c. Total annual throughput for **S2.002**, **PF1.016** and **PF1.016.1** will not exceed **90,000** tons of lime per year each, based on a 12-month rolling period.
- d. Hours
  - **S2.002**, **PF1.016** and **PF1.016.1** may operate **8,760** hours per year, each.

# **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

- G. Emission Units S2.002 and PF1.016 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> <u>Monitoring, Recordkeeping, Reporting and Compliance</u>

On and after the date of startup, Permittee will:

- Monitor and record the amount of lime loaded into \$2.002 each day loading occurs. The amount of lime will be based on purchasing receipts.
- b. Monitor and record the hours of operation for \$2.002 each day loading occurs.
- c. Monitor and record the amount of lime discharged from PF1.016 and PF1.016.1 each on a monthly basis. The amount of lime will be based on purchasing receipts and measurements of the level of lime in the silo at the beginning and end of the month. Level measurements will be made with sonic level detectors.
- d. Monitor and record the hours of operation of PF1.016 and PF1.016.1 each on a monthly basis.
- e. Conduct a quarterly inspection of the vent filter on **S2.002** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter material and housing) and any corrective actions taken.
- f. Conduct a monthly inspection of the enclosures on both PF1.016 and PF1.016.1 each and record the results and any corrective action taken
- g. Conduct and record an assessment of the visible emissions from the exhaust vent of \$2.002 and from PF1.016 and PF1.016.1 each, once per month. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while \$2.002, PF1.016 and PF1.016.1 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to \$2.002, PF1.016 and PF1.016.1 not operating or due to poor weather conditions.
- h. The hourly throughput rate in tons per hour for **PF1.016 and PF1.016.1** each will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- The hourly throughput rate in tons per hour for \$2.002 will be determined from the total daily throughput and the total daily hours of operation recorded above.
- j. Record the monthly loading rate of **\$2.002** in tons per calendar month, and the corresponding annual loading rate in tons per year, based on a 12-month rolling period. The monthly loading rate will be determined at the end of each calendar month as the sum of each total daily loading rate as determined in 4.a above for each day of the calendar month. The annual loading rate will be determined at the end of each calendar month as the sum of the monthly loading rates for the previous 12 months to determine compliance with 3.c of this Section.
- k. Record the monthly discharge rate of **PF1.016 and PF1.016.1** each in tons per calendar month, and the corresponding annual discharge rate in tons per year, based on a 12-month rolling period. The monthly discharge rate will be determined at the end of each calendar month. The annual discharge rate will be determined at the end of each calendar month as the sum of the monthly discharge rates for the previous 12 months to determine compliance with 3.c of this Section.
- I. The required monitoring established in a. through k. above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.002**, **PF1.016** and **PF1.016.1** each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily and monthly throughput rate of lime, in tons, for the corresponding date.
  - (iii) The total daily and monthly hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of lime, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in a. through d. above.
  - (v) Results and condition of the quarterly inspection of the vent filter on S2.002, and any corrective actions taken.
  - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Shielded Requirements

Compliance with conditions G.1 through G.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):



# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT

SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

H. Emission Units S2.081, PF1.029, and PF1.030 location North 4,533.3 km, East 547.2 km, UTM (Zone 11)

#### H. System 08 - Magnesium Oxide Silo Boulder Valley Water Treatment Plant

S 2.081 Magnesium oxide silo, 200 ton, loading

PF 1.029 Magnesium oxide silo, 200 ton, discharge to screw conveyor

PF 1.030 Magnesium oxide silo, 200 ton, screw conveyor transfer

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from **S2.081** will be ducted to a control system consisting of a vent filter.
- Emissions from PF1.029 and PF1.030 will be controlled by enclosures.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **S2.081**, Permittee will not discharge nor cause the discharge into the atmosphere from the exhaust stack of **S2.081**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.16** pound per hour, nor more than **0.027** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.16** pound per hour, nor more than **0.027** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **S2.081** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **\$2.081** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.029**, Permittee will not discharge nor cause the discharge into the atmosphere from **PF1.029**, the following pollutants in excess of the following specified limits:
  - (1) NAČ 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.006** pound per hour, nor more than **0.020** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.006** pound per hour, nor more than **0.020** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.029** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.029** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- c. On and after the date of startup of PF1.030, Permittee will not discharge nor cause the discharge into the atmosphere from PF1.030, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.030 pound per hour, nor more than 0.10 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.030** pound per hour, nor more than **0.10** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.030** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.030** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable loading rate for \$2.081 will not exceed 60.0 tons of magnesium oxide per any one-hour period.
- b. The maximum allowable throughput rate for **PF1.029 and PF1.030** will not exceed **3.0** tons of magnesium oxide per any one-hour period, each.
- c. Total annual throughput for **S2.081**, **PF1.029** and **PF1.030** will not exceed **20,000** tons of magnesium oxide per year each, based on a 12-month rolling period.
- d. Hours
  - **S2.081**, **PF1.029** and **PF1.030** may operate **8,760** hours per year, each.

# **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

- H. Emission Units S2.081, PF1.029, and PF1.030 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> <u>Monitoring, Recordkeeping, Reporting and Compliance</u>

On and after the date of startup, Permittee will:

a. Monitor and record the amount of magnesium oxide loaded into **\$2.081** each day loading occurs. The amount of magnesium oxide will be based on purchasing receipts.

b. Monitor and record the hours of operation for **\$2.081** each day loading occurs.

- c. Monitor and record the amount of magnesium oxide discharged from PF1.029 and PF1.030 each on a monthly basis. The amount of magnesium oxide will be based on purchasing receipts and measurements of the level of magnesium oxide in the silo at the beginning and end of the month. Level measurements will be made with sonic level detectors.
- Monitor and record the hours of operation of PF1.029 and PF1.030 each on a monthly basis.
- e. Conduct a quarterly inspection of the vent filter on **S2.081** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter material and housing) and any corrective actions taken.
- f. Conduct a monthly inspection of the enclosures on both **PF1.029 and PF1.030** each and record the results and any corrective action taken
- g. Conduct and record an assessment of the visible emissions from the exhaust vent of \$2.081 and from PF1.029 and PF1.030 each, once per month. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while \$2.081, PF1.029 and PF1.030 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to \$2.081, PF1.029 and PF1.030 not operating or due to poor weather conditions.
- h. The hourly throughput rate in tons per hour for **PF1.029 and PF1.030** each will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- i. The hourly throughput rate in tons per hour for **S2.081** will be determined from the total daily throughput and the total daily hours of operation recorded above.
- j. Record the monthly loading rate of **\$2.081** in tons per calendar month, and the corresponding annual loading rate in tons per year, based on a 12-month rolling period. The monthly loading rate will be determined at the end of each calendar month as the sum of each total daily loading rate as determined in 4.a above for each day of the calendar month. The annual loading rate will be determined at the end of each calendar month as the sum of the monthly loading rates for the previous 12 months to determine compliance with 3.c of this Section.
- k. Record the monthly discharge rate of **PF1.029 and PF1.030** each in tons per calendar month, and the corresponding annual discharge rate in tons per year, based on a 12-month rolling period. The monthly discharge rate will be determined at the end of each calendar month. The annual discharge rate will be determined at the end of each calendar month as the sum of the monthly discharge rates for the previous 12 months to determine compliance with 3.c of this Section.
- The required monitoring established in a. through k. above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that S2.081, PF1.029 and PF1.030 each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily and monthly throughput rate of magnesium oxide, in tons, for the corresponding date.
  - (iii) The total daily and monthly hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of magnesium oxide, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in a. through d. above.
  - (v) Results and condition of the quarterly inspection of the vent filter on S2.081, and any corrective actions taken.
  - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Shielded Requirements

Compliance with conditions H.1 through H.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

I. Emission Units S2.201 location North 4,538.6 km, East 552.6 km, UTM (Zone 11)

#### I. System 09 - Roaster Primary Crushing and Conveyance

- S 2.201.1 Dump hopper
- S 2.201.2 Gyratory crusher
- S 2.201.3 Apron feeder
- S 2.201.4 Transfer conveyor transfer to feed conveyor
- S 2.201.5 Baghouse hopper transfer to feed conveyor

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

Emissions from S2.201 will be ducted to a control system consisting of a baghouse (DC-201). DC-201 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.201, including startup and shutdown. Maximum volume flow rate of DC-201 will not exceed 42,500 dry standard cubic feet per minute (dscfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director). DC-201 filter media will consist of polyester with a maximum air-to-cloth ratio of 4:1. The capture efficiency of the control system will be 100% such that all process emissions from each emission unit indicated for S2.201 will be captured and ducted to DC-201 with the exception of the dump hopper. The capture efficiency for the dump hopper will be 50% or greater.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits

- a. On and after the date of startup of **S2.201**, Permittee will not discharge or cause the discharge into the atmosphere from the stack discharge of **DC-201** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 2.59 pounds per hour.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **2.59** pounds per hour.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the stack discharge of DC-201 will not equal or exceed 20 percent in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the stack discharge of DC-201 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- New Source Performance Standards Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)

On and after the date on which the performance test required to be conducted is completed, Permittee will not discharge or cause the discharge into the atmosphere from **DC-201** the following pollutants in excess of the following specified limits:

- (1) Emissions of particulate matter in excess of **0.05** gram per dry standard cubic meter. (40 CFR Part 60.382(a)(1))
- (2) Emissions that exhibit greater than **7 percent** opacity. (40 CFR Part 60.382(a)(2))
- (3) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
- At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **\$2.201** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable throughput rate for \$2.201 will not exceed 1,232.0 tons of ore per any one-hour period.
- b. **\$2.201** may operate **8,760** hours per year.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

- I. Emission Units S2.201 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> 40 CFR Part 64 Compliance Assurance Monitoring Program
    - a. Periodic Compliance Testing
      - 1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **DC-201**. The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests. The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition I.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in I.3.a of this Section).
        - (i) A Method 201A compliance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
        - (ii) A Method 5 or 17 compliance test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM.
      - (2) Permittee may substitute the Method 5 or 17 test for the Method 201A test.
      - (3) Compliance tests required under I.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in I.3.a of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
      - (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of **DC-201** in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
      - (5) The compliance tests required under I.4.a.(1) of this Section will be conducted within 60 days of an alteration or modification to the filter media and/or air-to-cloth ratio as restricted per I.1 of this Section. Replacement of filter media with the same type of media as part of routine maintenance does not constitute an alteration or modification for the purposes of this requirement, provided that the air-to-cloth ratio is not altered or modified.
    - b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the ore throughput of **S2.201** on a daily basis.
- (2) Monitor and record the hours of operation of **\$2.201** on a daily basis.
- (3) Install, calibrate, operate and maintain a device for the measurement of the pressure drop across Baghouse DC-201.
- (4) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of **DC-201**, <u>Dased on an one-hour period</u>, once during each day that **S2.201** is in operation. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (5) The indicator range for the baghouse pressure drop across DC-201 shall be between 0.5 and 11.0 inches of water. Excursions shall be defined as any time the baghouse pressure drop, <u>based on an one-hour period</u>, falls outside this indicator range.
- (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of DC-201 once during each week that \$2.201 is in operation. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while \$2.201 is operating and has the potential to create visible emissions. If DC-201 is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to \$2.201 not operating or due to poor weather conditions.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

- I. Emission Units S2.201 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> 40 CFR Part 64 Compliance Assurance Monitoring Program
    - b. Monitoring and Recordkeeping (continued)
      - Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (8) Once semi-annually, the permittee shall conduct an internal inspection of Baghouse DC-201, including bags.
      - (9) The hourly throughput rate in tons per hour for S2.201 will be determined from the total daily throughput and the total daily hours of operation recorded above.
      - (10) The required monitoring established in b.(1) through (9) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.201** is operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
        - (iii) The total daily hours of operation for the corresponding date.
        - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in b.(1) and (2) above.
        - (v) Results of the one-hour period reading of the pressure drop across Baghouse DC-201, for each day that S2.201 is in operation.
        - (vi) Results and verification of the semi-annual baghouse inspection, and documentation of the inspection date, of Baghouse DC-201, and any corrective actions taken.
        - (vii) Results and verification of the weekly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
    - New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
       Permittee, upon the issuance date of this permit, shall:
      - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
  - 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

**Shielded Requirements** 

Compliance with conditions I.1 through I.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

J. Emission Unit PF1.201 location North 4,538.6 km, East 552.6 km, UTM (Zone 11)

#### J. System 10 - Roaster Dump Hopper

PF 1.201 Primary crusher dump hopper loading (process fugitive emissions)

NAC 445B.3405 (NAC 445B.316) Part 70 Program
 Air Pollution Equipment

PF1.201 will be operated in a manner that minimizes emissions.

- 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Emission Limits</u>
  - a. On and after the date of startup of **PF1.201**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.201** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **1.66** pounds per hour, nor more than **5.54** tons per year, based on a 12-month rolling period.
    - 2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.58** pound per hour, nor more than **1.94** tons per year, based on a 12-month rolling period
    - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.201** will not equal or exceed **20 percent** in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.201** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. New Source Performance Standards (NSPS) Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.201** will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Process fugitive emissions from PF1.201 will not exceed 10 percent opacity. (40 CFR Part 60.382(b))
- (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
- At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.201** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
- 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Operating Parameters
  - a. The maximum allowable throughput rate for **PF1.201** will not exceed **1,232.0** tons of ore per any one-hour period, nor more than **8,212,500** tons of ore per year, based on a 12-month rolling period.
  - b. **PF1.201** may operate **8,760** hours per year.

# **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

- J. Emission Unit PF1.201 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
    - a. Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of startup, Permittee will:

- (1) Monitor and record the ore throughput of PF1.201 on a daily basis. At the end of each calendar month, record the total monthly ore throughput and the total ore throughput for the previous 12 months.
- (2) Monitor and record the hours of operation of **PF1.201** on a daily basis.
- (3) Conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test of the visible emissions (excluding water vapor) from **PF1.201** on a **monthly basis**. Each Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.201** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a Method 9 visible emissions test could not be conducted due to **PF1.201** not operating or due to poor weather conditions.
- (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (5) The hourly throughput rate in tons per hour for **PF1.201** will be determined from the total daily throughput and the total daily hours of operation recorded above.
- (6) The required monitoring established in (1) through (5) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.201** is operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
  - (iii) The total daily hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
  - (v) Results, verification and documentation of the monthly Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
   Permittee, upon the issuance date of this permit, shall:
  - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Shielded Requirements

Compliance with conditions J.1 through J.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 **CLASS I AIR QUALITY OPERATING PERMIT** SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

Emission Units S2.202 location North 4,538.6 km, East 552.5 km, UTM (Zone 11)

#### K. System 11 - Roaster Secondary Crushing and Conveyance

- S 2.202.1 Feed conveyor transfer to screen
- S 2.202.2 Screen
- S 2.202.3 Screen transfer to stacking conveyor
- S 2.202.4 Cone crusher
- S 2.202.5 Cone crusher transfer to stacking conveyor
- S 2.202.6 Baghouse hopper transfer to stacking conveyor

#### NAC 445B.3405 (NAC 445B.316) Part 70 Program 1.

#### Air Pollution Equipment

Emissions from \$2.202 will be ducted to a control system consisting of a baghouse (DC-202). DC-202 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.202, including startup and shutdown. Maximum volume flow rate of DC-202 will not exceed 23,600 dry standard cubic feet per minute (dscfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director). DC-202 filter media will consist of polyester with a maximum air-to-cloth ratio of 4:1. The capture efficiency of the control system will be 100% such that all process emissions from each emission unit indicated for \$2.202 will be captured and ducted to DC-202.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- On and after the date of startup of \$2.202, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of DC-202 the following pollutants in excess of the following specified limits:
  - NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed 1.29 pounds per hour.
  - NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in (2) diameter) to the atmosphere will not exceed 1.29 pounds per hour.
  - NAC 445B.22017 (State Only Requirement) The opacity from the stack discharge of DC-202 will not equal or exceed 20 (3) percent in accordance with NAC 445B.22017.
  - NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the stack discharge of DC-202 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- New Source Performance Standards Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part
  - On and after the date on which the performance test required to be conducted is completed, Permittee will not discharge or cause the discharge into the atmosphere from DC-202 the following pollutants in excess of the following specified limits:
  - Emissions of particulate matter in excess of 0.05 gram per dry standard cubic meter. (40 CFR Part 60.382(a)(1)) (1)
  - Emissions that exhibit greater than 7 percent opacity. (40 CFR Part 60.382(a)(2))
  - The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (3) (40 CFR Part 60.11(c))
  - (4) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate \$2.202 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program Operating Parameters

- The maximum allowable throughput rate for \$2.202 will not exceed 1,232.0 tons of ore per any one-hour period.
- S2.202 may operate 8,760 hours per year.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

- K. Emission Unit S2.202 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> 40 CFR Part 64 Compliance Assurance Monitoring Program
    - a. Periodic Compliance Testing
      - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **DC-202**. **The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests**. The compliance tests will consist of three valid runs (except as provided under I.U.5 of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition K.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in K.3.a of this Section).
        - (i) A Method 201A compliance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
        - (ii) A Method 5 or 17 compliance test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM.
      - (2) Permittee may substitute the Method 5 or 17 test for the Method 201A test.
      - (3) Compliance tests required under K.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in K.3.a of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
      - (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of **DC-202** in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
      - (5) The compliance tests required under K.4.a.(1) of this Section will be conducted within 60 days of an alteration or modification to the filter media and/or air-to-cloth ratio as restricted per K.1 of this Section. Replacement of filter media with the same type of media as part of routine maintenance does not constitute an alteration or modification for the purposes of this requirement, provided that the air-to-cloth ratio is not altered or modified.
    - b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the ore throughput of **\$2.202** on a daily basis.
- (2) Monitor and record the hours of operation of **\$2.202** on a daily basis.
- (3) Install, calibrate, operate and maintain a device for the measurement of the pressure drop across Baghouse DC-202.
- 4) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of **DC-202**, <u>based on a one-hour period</u>, once during each day that **S2.202** is in operation. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (5) The indicator range for the baghouse pressure drop across **DC-202** shall be between 1.0 and 7.0 inches of water. Excursions shall be defined as any time the baghouse pressure drop, <u>based on a one-hour period</u>, falls outside this indicator range.
- (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of **DC-202 once** during each week that **S2.202** is in operation. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.202** is operating and has the potential to create visible emissions. If **DC-202** is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.202** not operating or due to poor weather conditions.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

### K. Emission Unit S2.202 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> 40 CFR Part 64 Compliance Assurance Monitoring Program

Monitoring and Recordkeeping (continued)

- Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (8) The hourly throughput rate in tons per hour for **S2.202** will be determined from the total daily throughput and the total daily hours of operation recorded above.

(9) Once semi-annually, the permittee shall conduct an internal inspection of Baghouse DC-202, including bags.

(10) The required monitoring established in b.(1) through (9) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.202** is operating:

(i) The calendar date of any required monitoring.

(ii) The total daily throughput rate of ore, in tons, for the corresponding date.

(iii) The total daily hours of operation for the corresponding date.

- (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in b.(1) and (2) above.
- (v) Results of the one-hour period reading of the pressure drop across Baghouse DC-202, for each day that S2.202 is in operation.
- (vi) Results and verification of the semi-annual baghouse inspection, and documentation of the inspection date, of Baghouse DC-202, and any corrective actions taken.
- (vii) Results and verification of the weekly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
   Permittee, upon the issuance date of this permit, shall:
  - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Shielded Requirements

Compliance with conditions K.1 through K.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

L. Emission Unit PF1.202 location North 4,538.5 km, East 552.5 km, UTM (Zone 11)

#### L. System 12 - Roaster Crushed Ore Conveyance

PF 1.202 Coarse ore stacking conveyor

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

Emissions from the drop point of PF1.202 will be controlled by pneumatic water sprays or an enclosure.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Emission Limits

On and after the date of startup of **PF1.202**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.202**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.11** pound per hour, nor exceed **0.37** ton per year, based on a 12-month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.23** pound per hour, nor exceed **0.77** ton per year, based on a 12-month rolling period.
- c. NAC 445B.22017 (State Only Requirement) The opacity from PF1.202 will not equal or exceed 20% in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from PF1.202 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable throughput rate for **PF1.202** will not exceed **1,232.0** tons of ore per any one-hour period, nor more than **8,212,500** tons of ore per year, based on a 12-month rolling period.
- b. **PF1.202** may operate **8,760** hours per year.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

- L. Emission Unit PF1.202 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
    - a. Monitoring, Recordkeeping, Reporting and Compliance
      On and after the date of initial startup, Permittee will:
      - (1) Monitor and record the ore throughput of PF1.202 on a daily basis. At the end of each calendar month, record the total monthly ore throughput and the total ore throughput for the previous 12 months.
      - (2) Monitor and record the hours of operation of **PF1.202** on a daily basis.
      - (3) **PF1.202** must be controlled by either pneumatic water sprays or an enclosure. When **PF1.202** is operating and is controlled by pneumatic water sprays, inspect the pneumatic water spays on a daily basis to verify that the sprays are operating as designed. When **PF1.202** is operating and is controlled by an enclosure, inspect the enclosure on a monthly basis. Record the inspection results and any corrective actions taken.
      - (4) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.202** on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.202** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.202** not operating or due to poor weather conditions.
      - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request
      - (6) The hourly throughput rate in tons per hour for **PF1.202** will be determined from the total daily throughput and the total daily hours of operation recorded above.
      - (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.202** is operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
        - (iii) The total daily hours of operation for the corresponding date.
        - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
        - (v) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Shielded Requirements**

Compliance with conditions L.1 through L.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

M. Emission Units S2.203 location North 4,538.5 km, East 552.4 km, UTM (Zone 11)

#### M. System 13 - Ore/Lime Mills Feed Process

- S 2.203.1 Mill #1 apron feed system transfer
- S 2.203.2 Mill #2 apron feed system transfer
- S 2.203.3 Emergency Mill #1 apron feed system transfer
- S 2.203.4 Emergency Mill #2 apron feed system transfer
- S 2.203.5 Lime transfer to Mill #1 or Mill #2 belt conveyor
- S 2.203.6 Baghouse hopper transfer to Mill #2 feed conveyor

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

Emissions from S2.203 will be ducted to a control system consisting of a baghouse (DC-203). DC-203 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.203, including startup and shutdown. Maximum volume flow rate of DC-203 will not exceed 23,600 dry standard cubic feet per minute (dscfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director). DC-203 filter media will consist of polyester with a maximum air-to-cloth ratio of 4:1. The capture efficiency of the control system will be 100% such that all process emissions from each emission unit indicated for S2.203 will be captured and ducted to DC-203.

### 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### **Emission Limits**

- a. On and after the date of startup of **S2.203**, Permittee will not discharge or cause the discharge into the atmosphere from the stack discharge of **DC-203** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **1.29** pounds per hour.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **1.29** pounds per hour.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the stack discharge of DC-203 will not equal or exceed 20 percent in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the stack discharge of **DC-203** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. New Source Performance Standards Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)
  - On and after the date on which the performance test required to be conducted is completed, Permittee will not discharge or cause the discharge into the atmosphere from **DC-203** the following pollutants in excess of the following specified limits:
  - (1) Emissions of particulate matter in excess of 0.05 gram per dry standard cubic meter. (40 CFR Part 60.382(a)(1))
  - (2) Emissions that exhibit greater than **7 percent** opacity. (40 CFR Part 60.382(a)(2))
  - (3) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
  - (4) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **\$2.203** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

#### 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Operating Parameters</u>

- a. The maximum allowable throughput rate for \$2.203 will not exceed 1,000.0 tons of ore per any one-hour period.
- b. S2.203 may operate 8,760 hours per year.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

#### Emission Units S2.203 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program 40 CFR Part 64 Compliance Assurance Monitoring Program
  - Periodic Compliance Testing
    - Permittee will conduct and record the following periodic compliance tests on the exhaust stack of DC-203. The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests. The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition M.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in M.3.a of this Section).
      - A Method 201A compliance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
      - A Method 5 or 17 compliance test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference (ii) method approved by the Director) for PM.
    - Permittee may substitute the Method 5 or 17 test for the Method 201A test.
    - Compliance tests required under M.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in M.3.a of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance
    - Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack (4) of DC-203 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
    - The compliance tests required under M.4.a.(1) of this Section will be conducted within 60 days of an alteration or modification (5) to the filter media and/or air-to-cloth ratio as restricted per M.1 of this Section. Replacement of filter media with the same type of media as part of routine maintenance does not constitute an alteration or modification for the purposes of this requirement, provided that the air-to-cloth ratio is not altered or modified.
  - Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- Monitor and record the ore throughput of \$2.203 on a daily basis. (1)
- (2) (3) Monitor and record the hours of operation of \$2.203 on a daily basis.
- Install, calibrate, operate and maintain a device for the measurement of the pressure drop across Baghouse DC-203.
- Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of DC-203, based on a one-hour period, once during each day that \$2.203 is in operation. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the baghouse pressure drop across DC-203 shall be between 1.0 and 7.0 inches of water. Excursions (5) shall be defined as any time the baghouse pressure drop, based on a one-hour period, falls outside this indicator range.
- Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of DC-203 once (6)during each week that \$2.203 is in operation. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while S2.203 is operating and has the potential to create visible emissions. If DC-203 is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to \$2.203 not operating or due to poor weather conditions.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

#### M. Emission Units S2.203 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> 40 CFR Part 64 Compliance Assurance Monitoring Program
  - b. Monitoring and Recordkeeping (continued)
    - Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (8) The hourly throughput rate in tons per hour for **S2.203** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (9) Once semi-annually, the permittee shall conduct an internal inspection of Baghouse DC-203, including bags.
    - (10) The required monitoring established in b.(1) through (9) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.203** is operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in b.(1) and (2) above.
      - (v) Results of the one-hour period reading of the pressure drop across Baghouse DC-203, each day that \$2.203 is in operation.
      - (vi) Results and verification of the semi-annual baghouse inspection, and documentation of the inspection date, of Baghouse DC-203, and any corrective actions taken.
      - (vii) Results and verification of the weekly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
     Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Shielded Requirements</u>

Compliance with conditions M.1 through M.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

N. Emission Units PF1.203 location North 4,538.5 km, East 552.5 km, UTM (Zone 11)

#### N. System 14 - Emergency Reclaim Hoppers (Loading) Process

PF 1.203.1 Mill #1 hopper

PF 1.203.2 Mill #2 hopper

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

PF1.203 will be operated in a manner which minimizes emissions.

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Emission Limits</u>

- a. On and after the date of startup of **PF1.203**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.203** the following pollutants in excess of the following specified limits:
  - 1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **2.31** pounds per hour, nor more than **1.35** tons per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.80** pound per hour, nor more than **0.47** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.203** will not equal or exceed **20 percent** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.203** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. New Source Performance Standards (NSPS) Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.203** will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Process fugitive emissions from PF1.203 will not exceed 10 percent opacity. (40 CFR Part 60.382(b))
- (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
- At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.203** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Operating Parameters

- a. The maximum allowable throughput rate for **PF1.203** will not exceed **856.0** tons of ore per any one-hour period, nor more than **1,000,000** tons of ore per year, based on a 12-month rolling period.
- b. **PF1.203** may operate **8,760** hours per year.

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# Section VI. Specific Operating Conditions (continued)

- N. Emission Units PF1.203 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - Monitoring, Recordkeeping, Reporting and Compliance
       On and after the date of initial startup, Permittee will:
      - (1) Monitor and record the ore throughput of PF1.203 on a daily basis. At the end of each calendar month, record the total monthly ore throughput and the total ore throughput for the previous 12 months.
      - (2) Monitor and record the hours of operation of **PF1.203** on a daily basis.
      - Conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test of the visible emissions (excluding water vapor) from **PF1.203** on a **monthly basis**. Each Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.203** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a Method 9 visible emissions test could not be conducted due to **PF1.203** not operating or due to poor weather conditions.
      - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (5) The hourly throughput rate in tons per hour for **PF1.203** will be determined from the total daily throughput and the total daily hours of operation recorded above.
      - (6) The required monitoring established in (1) through (5) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.203** is operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
        - (iii) The total daily hours of operation for the corresponding date.
        - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
        - (v) Results, verification and documentation of the monthly Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
    - New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
       Permittee, upon the issuance date of this permit, shall:
      - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Shielded Requirements

Compliance with conditions N.1 through N.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

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# Section VI. Specific Operating Conditions (continued)

O. Emission Units S2.204 and S2.205 location North 4,538.5 km, East 552.2 km, UTM (Zone 11)

#### O. System 15A - Roaster Mill Circuit: Mill #1 Air Pre-heater

S 2.204 Mill #1 air pre-heater

#### O. System 15B - Roaster Mill Circuit: Mill #1 Dry Grinding Process

- S 2.205.01 Mill #1 feed conveyor
- S 2.205.02 Mill #1 double rotator grinding mill
- S 2.205.03 Mill #1 grinding mill to bucket elevator air slide system
- S 2.205.04 Mill #1 bucket elevator
- S 2.205.05 Mill #1 bucket elevator to dynamic classifier air slide system
- S 2.205.06 Mill #1 dynamic classifier
- S 2.205.07 Mill #1 dynamic classifier to grinding mill air slide system
- S 2.205.08 Mill #1 product recovery baghouse to roaster #1 silo air slide system
- S 2.205.09 Mill #1 pick-up point baghouse to roaster #1 silo air slide system
- S 2.205.10 Mill #1 static classifier
- S 2.205.11 Roaster #1 silo
- S 2.205.12 Ball chip removal system

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- Emissions from **S2.204** and **S2.205** will be controlled by a control system (**CS-201**) consisting of two (2) quad-chamber product recovery baghouses (**DC-204.1** and **DC-204.2**) and one pick-up point baghouse (**DC-205**). The primary exhaust from **S2.204** and **S2.205** will be split and directed to either **DC-204.1** or **DC-204.2** for product recovery and emissions control.
- b. Emissions from material transfers associated with S2.205 will be ducted to DC-205. CS-201 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.204 and S2.205, including startup and shutdown.
- c. Emissions from **CS-201** will be vented to the atmosphere through a single stack. Maximum volume flow rate of **CS-201** will not exceed **183,680** standard cubic feet per minute (scfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director).
- d. DC-204.1 and DC-204.2 filter media will consist of P-84 filtering material laminated on a substrate with a maximum air-to-cloth ratio of 5:1. DC-205 filter media will consist of polyester with a maximum air-to-cloth ratio of 4:1. The capture efficiency of CS-201 will be 100% such that all process emissions from each emission unit indicated for S2.204 and S2.205 will be captured and ducted to a baghouse (DC-204.1, DC-204.2 or DC-205). S2.204 will be equipped with low-NO<sub>x</sub> burners and operated in a manner that minimizes emissions.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits

- a. On and after the date of startup of **S2.204 and S2.205**, Permittee will not discharge or cause the discharge into the atmosphere from the stack discharge of **CS-201** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **12.60** pounds per hour.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **12.60** pounds per hour.
  - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **4.28** pounds per hour, nor exceed **16.88** tons per year, based on a 12-month rolling period.
  - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed **9.80** pounds per hour, nor exceed **24.22** tons per year, based on a 12-month rolling period.
  - (5) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere will not exceed **5.60** pounds per hour, nor exceed **13.84** tons per year, based on a 12-month rolling period.
  - (6) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed **1.82** pounds per hour, nor exceed **4.50** tons per year, based on a 12-month rolling period.
  - (7) NAC 445B.22017 (State Only Requirement) The opacity from the stack discharge of CS-201 will not equal or exceed 20 percent in accordance with NAC 445B.22017.
  - (8) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the stack discharge of **CS-201** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

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# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

- O. Emission Units S2.204 and S2.205 (continued)
  - NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Emission Limits
    - b. New Source Performance Standards Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)
      - On and after the date on which the performance test required to be conducted is completed, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **CS-201** the following pollutants in excess of the following specified limits:
      - (1) Emissions of particulate matter in excess of **0.05** gram per dry standard cubic meter. (40 CFR Part 60.382(a)(1))
      - (2) Emissions that exhibit greater than **7 percent** opacity. (40 CFR Part 60.382(a)(2))
      - (3) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
      - At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **S2.204 and S2.205** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
  - 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    Operating Parameters
    - S2.204 may combust either HD-5 grade propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
    - b. The maximum heat input rate for **\$2.204** will not exceed **140** million Btu's per any one-hour period, nor exceed **692,040** million Btu's per year, based on a 12-month rolling period.
    - c. The maximum fuel consumption rate for **\$2.204** will not exceed **1,528** gallons of HD-5 grade propane per any one-hour period, nor more than **7,555,022** gallons per year, based on a 12-month rolling period.
    - d. The maximum fuel consumption rate for **\$2.204** will not exceed **140,000** cubic feet of pipeline quality natural gas per any one-hour period, nor more than **692,040,000** cubic feet per year, based on a 12-month rolling period.
    - e. The maximum allowable throughput rate for \$2.205 will not exceed 500.0 tons of ore per any one-hour period, nor exceed 3,376,250 tons of ore per year, based on a 12-month rolling period.
    - f. **S2.204** may operate **8,760** hours per year.
    - g. **S2.205** may operate **8,760** hours per year.

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

- O. Emission Units S2.204 and S2.205 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> 40 CFR Part 64 <u>Compliance Assurance Monitoring Program</u>
    - a. Periodic Compliance Testing
      - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **CS-201**. **The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests**. The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition O.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in O.3.b. and e. of this Section).
        - (i) Method 201A and 202 compliance tests in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
        - (ii) Method 5 or 17 (with back-half catch) and 7E compliance tests for PM and NO<sub>x</sub> in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
        - (iii) Method 6 and Method 10 compliance tests for SO<sub>2</sub> and CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (2) The Method 201A and Method 202 tests required in O.4.a.(1) of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in O.2.a. of this section.
      - (3) Compliance tests required under O.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in O.3.b. and e. of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
      - (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of **CS-201** in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
      - (5) The compliance tests required for PM<sub>10</sub> and PM under O.4.a.(1) of this Section will be conducted within 60 days of an alteration or modification to the filter media and/or air-to-cloth ratio as restricted per O.1 of this Section. Replacement of filter media with the same type of media as part of routine maintenance does not constitute an alteration or modification for the purposes of this requirement, provided that the air-to-cloth ratio is not altered or modified.
      - (6) The compliance tests required for NO<sub>x</sub> and CO under O.4.a.(1) of this Section will be conducted within 60 days of switching the fuel combusted in **S2.204** as allowed under O.3.a. of this Section.

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# Section VI. Specific Operating Conditions (continued)

- O. Emission Units S2.204 and S2.205 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> 40 CFR Part 64 Compliance Assurance Monitoring Program
    - b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the type (HD-5 grade propane or pipeline quality natural gas) and amount of fuel combusted in **S2.204** and the ore throughput of **S2.205** on a daily basis. At the end of each calendar month, record the total monthly fuel use and ore throughput, and the total fuel use and ore throughput for the previous 12 months.
- (2) Monitor and record the hours of operation of **S2.204 and S2.205** on a daily basis.
- Install, calibrate, operate and maintain devices for the measurement of the pressure drop across **Baghouses DC-204.1**, **DC-204.2** and **DC-205** and the fuel consumption rate for each fuel combusted in S2.204.
- (4) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of DC-204.1, DC-204.2 and DC-205, based on a one-hour period, once during each day of operation. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (5) The indicator range for the baghouse pressure drop shall be between **1.5 and 11.0** inches of water for **DC-204.1 and DC-204.2**, and **1.5 and 6.5** inches of water for **DC-205**. Excursions shall be defined as anytime the baghouse pressure drop, based on a one-hour period, falls outside this indicator range.
- (6) Conduct and record a baghouse inspection on a calendar quarter basis.
- (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of CS-201 on a daily basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while S2.204 and S2.205 are operating and have the potential to create visible emissions. If CS-201 is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to S2.204 and S2.205 not operating or due to poor weather conditions.
- (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (9) The hourly fuel heat input rate in millions of Btu's per hour for **\$2.204** will be determined from the total daily fuel consumption and the total daily hours of operation recorded above.
- (10) The hourly throughput rate in tons per hour for S2.205 will be determined from the total daily throughput and the total daily hours of operation recorded above.
- (11) The required monitoring established in b.(1) through (10) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.204** and **\$2.205** each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
  - (iii) The total daily hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in b.(1) and (2) above.
  - (v) Maintain a contemporaneous log of each switching of fuels combusted in S2.204. The log must contain, at a minimum, the date and time of each switching of fuels combusted in S2.204.
  - (vi) The total daily fuel consumption rate of gallons of propane or cubic feet of pipeline quality natural gas, for the corresponding date.
  - (vii) The corresponding average hourly fuel consumption rate of gallons of propane or cubic feet of pipeline quality natural gas. The average hourly fuel consumption rate will be determined from the daily fuel consumption rate and the total daily hours of operation recorded in b.(1) and (2) above.
  - (viii) Results of the one-hour period reading of the pressure drop across **Baghouses DC-204.1**, **DC-204.2** and **DC-205**, each day that **S2.204** and **S2.205** each, are in operation.
  - (ix) Results and verification of the calendar quarter baghouse inspections, and documentation of the inspection date, of **Baghouses DC-204.1, DC-204.2 and DC-205**, and any corrective actions taken.
  - (x) Results and verification of the **daily** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- Reporting Permittee will notify the Director within 15 days of switching the fuels combusted in \$2.204 as allowed under O.3.a. of this Section.
- New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
   Permittee, upon the issuance date of this permit, shall:
  - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility (S2.205); any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

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# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

#### O. Emission Units S2.204 and S2.205 (continued)

Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
 Compliance with conditions O.1 through O.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC 445.746 (Other Sulfur Emitting Processes) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.2205 (Other Process which Emit Sulfur) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121)

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## Section VI. Specific Operating Conditions (continued)

P. Emission Units S2.206 and S2.207 location North 4,538.5 km, East 552.2 km, UTM (Zone 11)

#### P. System 16A - Roaster Mill Circuit: Mill #2 Air Pre-heater

S 2.206 Mill #2 air pre-heater

#### P. System 16B - Roaster Mill Circuit: Mill #2 Dry Grinding Process

- S 2.207.01 Mill #2 feed conveyor
- S 2.207.02 Mill #2 double rotator grinding mill
- S 2.207.03 Mill #2 grinding mill to bucket elevator air slide system
- S 2.207.04 Mill #2 bucket elevator
- S 2.207.05 Mill #2 bucket elevator to dynamic classifier air slide system
- S 2.207.06 Mill #2 dynamic classifier
- S 2.207.07 Mill #2 dynamic classifier to grinding mill air slide system
- S 2.207.08 Mill #2 product recovery baghouse to roaster #2 silo air slide system
- S 2.207.09 Mill #2 pick-up point baghouse to roaster #2 silo air slide system
- S 2.207.10 Mill #2 static classifier
- S 2.207.11 Roaster #2 silo
- S 2.207.12 Ball chip removal system

#### 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Air Pollution Equipment

- a. Emissions from **S2.206 and S2.207** will be controlled by a control system (**CS-202**) consisting of two (2) quad-chamber product recovery baghouses (**DC-206.1** and **DC-206.2**) and one pick-up point baghouse (**DC-207**). The primary exhaust from **S2.206 and S2.207** will be split and directed to either **DC-206.1** or **DC-206.2** for product recovery and emissions control.
- b. Emissions from material transfers associated with S2.207 will be ducted to DC-207. CS-202 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.206 and S2.207, including startup and shutdown.
- c. Emissions from **CS-202** will be vented to the atmosphere through a single stack. Maximum volume flow rate of **CS-202** will not exceed **183,680** standard cubic feet per minute (scfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director).
- d. DC-206.1 and DC-206.2 filter media will consist of P-84 filtering material with a maximum air-to-cloth ratio of 5:1. DC-207 filter media will consist of polyester with a maximum air-to-cloth ratio of 4:1. The capture efficiency of CS-202 will be 100% such that all process emissions from each emission unit indicated for S2.206 and S2.207 will be captured and ducted to a baghouse (DC-206.1, DC-206.2 or DC-207). S2.206 will be equipped with low-NO<sub>x</sub> burners and operated in a manner that minimizes emissions.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of S2.206 and S2.207 Permittee will not discharge or cause the discharge into the atmosphere from the stack discharge of CS-202 the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **12.60** pounds per hour.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **12.60** pounds per hour.
  - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **4.28** pounds per hour, nor exceed **16.88** tons per year, based on a 12-month rolling period.
  - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of  $NO_x$  (nitrogen oxides) to the atmosphere will not
  - exceed **9.80** pounds per hour, nor exceed **24.22** tons per year, based on a 12-month rolling period.

    (5) NAC 445B.305 (*Federally Enforceable Part 70 Program*) The discharge of CO (carbon monoxide) to the atmosphere will not exceed **5.60** pounds per hour, nor exceed **13.84** tons per year, based on a 12-month rolling period.
  - (6) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed **1.82** pounds per hour, nor exceed **4.50** tons per year, based on a 12-month rolling period.
  - (7) NAC 445B.22017 (State Only Requirement) The opacity from the stack discharge of CS-202 will not equal or exceed 20 percent in accordance with NAC 445B.22017.
  - (8) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the stack discharge of **CS-202** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

- P. Emission Units S2.206 and S2.207 (continued)
  - 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Emission Limits
    - b. New Source Performance Standards Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)
      - On and after the date on which the performance test required to be conducted is completed, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **CS-202** the following pollutants in excess of the following specified limits:
      - (1) Emissions of particulate matter in excess of **0.05** gram per dry standard cubic meter. (40 CFR Part 60.382(a)(1))
      - (2) Emissions that exhibit greater than **7 percent** opacity. (40 CFR Part 60.382(a)(2))
      - (3) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
      - At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **S2.206 and S2.207** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
  - 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    Operating Parameters
    - S2.206 may combust either HD-5 grade propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
    - b. The maximum heat input rate for **\$2.206** will not exceed 140 million Btu's per any one-hour period, nor exceed 692,040 million Btu's per year, based on a 12-month rolling period.
    - c. The maximum fuel consumption rate for **\$2.206** will not exceed 1,528 gallons of HD-5 grade propane per any one-hour period, nor more than 7,555,022 gallons per year, based on a 12-month rolling period.
    - d. The maximum fuel consumption rate for **\$2.206** will not exceed 140,000 cubic feet of pipeline quality natural gas per any one-hour period, nor more than 692,040,000 cubic feet per year, based on a 12-month rolling period.
    - e. The maximum allowable throughput rate for **\$2.207** will not exceed 500.0 tons of ore per any one-hour period, nor exceed 3,376,250 tons of ore per year, based on a 12-month rolling period.
    - f. **S2.206** may operate 8,760 hours per year.
    - g. **\$2.207** may operate 8,760 hours per year.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

- P. Emission Units S2.206 and S2.207 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> 40 CFR Part 64 <u>Compliance Assurance Monitoring Program</u>
    - a. Periodic Compliance Testing
      - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **CS-202**. **The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests**. The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition P.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in P.3.b. and e. of this Section).
        - Method 201A and 202 compliance tests in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
        - (ii) Method 5 or 17 (with back-half catch) and 7E compliance tests for PM and NO<sub>x</sub> in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
        - (iii) Method 6 and Method 10 compliance tests for SO<sub>2</sub> and CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (2) The Method 201A and Method 202 tests required in P.4.a.(1) of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in P.2.a. of this section
      - (3) Compliance tests required under P.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in P.3.b. and e. of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
      - (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of CS-202 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
      - (5) The compliance tests required for PM<sub>10</sub> and PM under P.4.a.(1) of this Section will be conducted within 60 days of an alteration or modification to the filter media and/or air-to-cloth ratio as restricted per P.1 of this Section. Replacement of filter media with the same type of media as part of routine maintenance does not constitute an alteration or modification for the purposes of this requirement, provided that the air-to-cloth ratio is not altered or modified.
      - (6) The compliance tests required for NO<sub>x</sub> and CO under P.4.a.(1) of this Section will be conducted within 60 days of switching the fuel combusted in **S2.206** as allowed under P.3.a. of this Section.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- P. Emission Units S2.206 and S2.207 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
     40 CFR Part 64 Compliance Assurance Monitoring Program
    - b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the type (HD-5 grade propane or pipeline quality natural gas) and amount of fuel combusted in S2.206 and the ore throughput of S2.207 on a daily basis. At the end of each calendar month, record the total monthly fuel use and ore throughput, and the total fuel use and ore throughput for the previous 12 months.
- (2) Monitor and record the hours of operation of **S2.206 and S2.207** on a daily basis.
- Install, calibrate, operate and maintain devices for the measurement of the pressure drop across Baghouses DC-206.1, DC-206.2 and DC-207 and the fuel consumption rate for each fuel combusted in S2.206.
- (4) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of DC-206.1, DC-206.2 and DC-207, based on a one-hour period, once during each day of operation. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (5) The indicator range for the baghouse pressure drop shall be between **1.5** and **11.0** inches of water for **DC-206.1** and **DC-206.2**, and **1.5** and **6.5** inches of water for **DC-207**. Excursions shall be defined as anytime the baghouse pressure drop, based on a one-hour period, falls outside this indicator range.
- (6) Conduct and record a baghouse inspection on a calendar quarter basis.
- (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of CS-202 on a daily basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while S2.206 and S2.207 are operating and have the potential to create visible emissions. If CS-202 is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to S2.206 and S2.207 not operating or due to poor weather conditions.
- (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (9) The hourly fuel heat input rate in millions of Btu's per hour for S2.206 will be determined from the total daily fuel consumption and the total daily hours of operation recorded above.
- (10) The hourly throughput rate in tons per hour for **\$2.207** will be determined from the total daily throughput and the total daily hours of operation recorded above.
- (11) The required monitoring established in b.(1) through (10) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.206** and **\$2.207** each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
  - (iii) The total daily hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in b.(1) and (2) above.
  - (v) Maintain a contemporaneous log of each switching of fuels combusted in **S2.206**. The log must contain, at a minimum, the date and time of each switching of fuels combusted in **S2.206**.
  - (vi) The total daily fuel consumption rate of gallons of propane or cubic feet of pipeline quality natural gas, for the corresponding date.
  - (vii) The corresponding average hourly fuel consumption rate of gallons of propane or cubic feet of pipeline quality natural gas. The average hourly fuel consumption rate will be determined from the daily fuel consumption rate and the total daily hours of operation recorded in b.(1) and (2) above.
  - (viii) Results of the one-hour period reading of the pressure drop across **Baghouses DC-206.1**, **DC-206.2** and **DC-207**, each day that **S2.206** and **S2.207** each, are in operation.
  - (ix) Results and verification of the calendar quarter baghouse inspections, and documentation of the inspection date, of **Baghouses DC-206.1, DC-206.2 and DC-207**, and any corrective actions taken.
  - (x) Results and verification of the **daily** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- c. Reporting Permittee will notify the Director within 15 days of switching the fuel combusted in **S2.206** as allowed under P.3.a of this Section.
- New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
   Permittee, upon the issuance date of this permit, shall:
  - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility (S2.207); any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

#### P. Emission Units S2.206 and S2.207 (continued)

Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
 Compliance with conditions P.1 through P.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC 445.746 (Other Sulfur Emitting Processes) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.2205 (Other Process which Emit Śulfur) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121)





### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

Q. Emission Units S2.208 location North 4,538.5 km, East 552.2 km, UTM (Zone 11)

#### Q. System 17 - Roaster Circuit: Roaster #1 and Roaster #2 Feed Process S 2.208.01 Roaster #1 silo to feed box air slide system S 2.208.02 Feed box to roaster #1 belt air slide system S 2.208.03 Roaster #1 belt S 2.208.04 Roaster #1 belt to bucket elevator air slide system S 2.208.05 Roaster #1 bucket elevator S 2.208.06 Roaster #1 elevator to fluidized feeder air slide system S 2.208.07 Roaster #1 fluidized feeder S 2.208.08 Roaster #1 baghouse hopper transfer to feed box Coal transfer to roaster #1 - bucket elevator S 2.208.09 S 2.208.10 Roaster #2 silo to feed box air slide system S 2.208.11 Feed box to roaster #2 belt air slide system S Roaster #2 belt 2.208.12 S 2.208.13 Roaster #2 belt to bucket elevator air slide system S 2.208.14 Roaster #2 bucket elevator S 2.208.15 Roaster #2 elevator to fluidized feeder air slide system S 2.208.16 Roaster 2 fluidized feeder S Roaster #2 baghouse hopper transfer to feed box 2.208.17 S 2.208.18 Coal transfer to roaster #2 - bucket elevator

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Air Pollution Equipment</u>

Emissions from \$2.208 will be ducted to a control system consisting of a baghouse (DC-208 for the Roaster 1 feed circuit and DC-209 for the Roaster 2 feed circuit). DC-208 and DC-209 will be operated in accordance with the manufacturer's recommendations at all times during operation of \$2.208, including startup and shutdown. Emissions from DC-208 and DC-209 will be vented to the atmosphere through a single stack. Maximum volume flow rate of DC-208 and DC-209 will not exceed 14,760 standard cubic feet per minute (scfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or a alternative EPA Reference method approved by the Director). DC-208 and DC-209 filter media will consist of polyester with a maximum air-to-cloth ratio of 4:1. The capture efficiency of the control system will be 100% such that all process emissions from each emission unit indicated for \$2.208 will be captured and ducted to DC-208 and DC-209.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

- Q. Emission Units S2.208 (continued)
  - NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Emission Limits
    - a. On and after the date of startup of **S2.208**, Permittee will not discharge or cause the discharge into the atmosphere from the stack discharge of **DC-208** and **DC-209** the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **1.01** pounds per hour.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **1.01** pounds per hour.
      - (3) NAC 445B.22017 (State Only Requirement) The opacity from the stack discharge of DC-208 and DC-209 will not equal or exceed 20 percent in accordance with NAC 445B.22017.
      - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the stack discharge of **DC-208** and **DC-209** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
    - b. New Source Performance Standards Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)

On and after the date on which the performance test required to be conducted is completed, Permittee will not discharge or cause the discharge into the atmosphere from the single exhaust stack of **DC-208** and **DC-209** the following pollutants in excess of the following specified limits:

- (1) Emissions of particulate matter in excess of **0.05** gram per dry standard cubic meter. (40 CFR Part 60.382(a)(1))
- (2) Emissions that exhibit greater than **7 percent** opacity. (40 CFR Part 60.382(a)(2))
- (3) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
- (4) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **\$2.208** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
- 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Operating Parameters
  - a. The maximum allowable throughput rate for \$2.208 will not exceed 1,000.0 tons of ore per any one-hour period.
  - S2.208 may operate 8,760 hours per year.
- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

40 CFR Part 64 Compliance Assurance Monitoring Program

- a. Periodic Compliance Testing
  - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **DC-208** and **DC-209**. The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests. The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition Q.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in Q.3.a. of this Section).
    - A Method 201A compliance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
    - (ii) A Method 5 or 17 compliance test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM.
  - 2) Permittee may substitute the Method 5 or 17 test for the Method 201A test.
  - Compliance tests required under Q.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in Q.3.a. of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
  - (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the single exhaust stack of **DC-208** and **DC-209** in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
  - (5) The compliance tests required under Q.4.a.(1) of this Section will be conducted within 60 days of an alteration or modification to the filter media and/or air-to-cloth ratio as restricted per Q.1 of this Section. Replacement of filter media with the same type of media as part of routine maintenance does not constitute an alteration or modification for the purposes of this requirement, provided that the air-to-cloth ratio is not altered or modified.

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

#### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- Q. Emission Units S2.208 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> 40 CFR Part 64 Compliance Assurance Monitoring Program
    - b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the ore throughput of **\$2.208** on a daily basis.
- (2) Monitor and record the hours of operation of **\$2.208** on a daily basis.
- (3) Install, calibrate, operate and maintain a device for the measurement of the pressure drop across DC-208 and DC-209.
- (4) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of **DC-208 and DC-209**, <u>based on a one-hour period</u>, once during each day of operation. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (5) The indicator range for the baghouse pressure drop shall be between **0.5 and 10.0** inches of water for **DC-208 and DC-209**, each. Excursions shall be defined as anytime the baghouse pressure drop, <u>based on a one-hour period</u>, falls outside this indicator range.
- (6) Conduct and record a baghouse inspection on an annual basis.
- (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the single exhaust stack of **DC-208 and DC-209** on a weekly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.208** is operating and has the potential to create visible emissions. If **DC-208 and DC-209** are shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.208** not operating or due to poor weather conditions.
- (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (9) The hourly throughput rate in tons per hour for \$2.208 will be determined from the total daily throughput and the total daily hours of operation recorded above.
- (10) The required monitoring established in b.(1) through (9) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.208** is operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
  - (iii) The total daily hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in b.(1) and (2) above.
  - (v) Results of the one-hour period reading of the pressure drop across **Baghouses DC-208 and DC-209**, each day that **S2.208** is in operation.
  - (vi) Results and verification of the annual baghouse inspection, and documentation of the inspection date, of **Baghouses DC-208** and **DC-209**, and any corrective actions taken.
  - (vii) Results and verification of the weekly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- c. New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b)) Permittee, upon the issuance date of this permit, shall:
  - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Shielded Requirements

Compliance with conditions Q.1 through Q.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

R. Emission Units S2.209 location North 4,538.5 km, East 552.1 km, UTM (Zone 11)

#### R. System 18 - Roaster Circuit: Ore Roasting Process

S 2.209.1 Roaster #1 S 2.209.2 Roaster #2

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- 100% of all process emissions from **S2.209** will be ducted to a control system (**CS-203**) consisting of:
  - (1) a venturi wet dust scrubber (**VS-201**) on the exhaust stream of Roaster 1.
  - (2) a venturi wet dust scrubber (VS-202) on the exhaust stream of Roaster 2.
  - (3) a wet electrostatic precipitator (ESP-201) on the combined exhaust stream of Roasters 1 and 2. ESP-201 consists of an A and B side. The exhaust stream of Roasters 1 and 2 must be ducted through one or both sides at all times during operation of \$2.209.
  - (4) a mercury scrubber (**HG-201**) on the combined exhaust stream of Roasters 1 and 2.
  - (5) a SO<sub>2</sub> scrubber (**SO2-201**) on the combined exhaust stream of Roasters 1 and 2.
  - (6) a thermal CO oxidizer (**CO-201**) (which includes up to 36 million Btu's per hour of pre-heater and thermal oxidizer burner total heat input) on the combined exhaust stream of Roasters 1 and 2, except as provided by R.1.c. of this Section.
  - (7) a selective catalytic NO<sub>x</sub> reduction system (SCR-201) on the combined exhaust stream of Roasters 1 and 2, except as provided by R.1.c. of this Section.
- b. The exhausts from the above control devices will be combined and vented to the atmosphere through a single stack. The above control devices will be operated in accordance with the manufacturer's recommendations at all times during operation of **S2.209**, including startup and shutdown, except as provided by R.1.c. of this Section. Equipment associated with the above control devices with the potential for fugitive chlorine emissions will be equipped with capture hoods (to capture 100% of all process emissions) and ducted to **SO2-201**.
- c. **S2.209** may be operated without the operation of **CO-201** and/or **SCR-201** (or **CO-201** and/or **SCR-201** may be physically removed from the control system) provided that the NO<sub>x</sub> and CO emissions measured by the NO<sub>x</sub> and CO continuous emission monitor, required under R.4.b.(12) and (13) of this Section, remain below the emission limits established in R.2.d. and e. of this Section.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits

On and after the date of startup of **S2.209**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **CS-203** the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **6.0** pounds per hour, nor exceed **23.6** tons per year, based on a 12-month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **6.0** pounds per hour, nor exceed **23.6** tons per year, based on a 12-month rolling period.
- c. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **44.9** pounds per hour based on a 3-hour rolling average.
- d. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed **36.81** pounds per hour, based on a 3-hour rolling average, nor exceed **145.2** tons per year, based on a 12-month rolling period.
- e. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere will not exceed **47.08** pounds per hour, based on a 3-hour rolling average, nor exceed **185.7** tons per year, based on a 12-month rolling period.
- f. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 22.0 pounds per hour.
- g. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of Hg (mercury) to the atmosphere will not exceed **0.2** pound per hour.
- h. NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of CS-203 will not equal or exceed 20% in accordance with NAC 445B.22017.
- i. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stack of **CS-203** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- R. Emission Units S2.209 (continued)
  - 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Operating Parameters
    - a. **\$2.209** may combust sub bituminous coal, #2 fuel oil, and either HD-5 grade propane or pipeline quality natural gas only. Combustion of a blend of propane and natural gas is prohibited.
    - b. The maximum allowable throughput for \$2.209 will not exceed 1,000.0 tons of ore, petroleum contaminated soil (pcs), carbon fines, and spent carbon from carbon adsorption controls per any one-hour period, combined, nor exceed 6,752,500 tons of ore, petroleum contaminated soil (pcs), carbon fines, and spent carbon from carbon adsorption controls per year, combined, based on a 12-month rolling period. The maximum allowable throughput for \$2.209 will not exceed 22,508 tons of petroleum contaminated soil, carbon fines, and spent carbon from carbon adsorption controls, per year, each, based on a 12-month rolling period.
    - c. The maximum sub bituminous coal consumption rate for \$2.209 will not exceed 6.8 tons per any one-hour period.
    - d. The maximum #2 fuel oil consumption rate for \$2.209 will not exceed 607.0 gallons per any one-hour period.
    - e. The maximum fuel consumption rate for \$2.209 will not exceed 437.0 gallons of HD-5 grade propane per any one-hour period.
    - f. The maximum fuel consumption rate for \$2.209 will not exceed 40,000.0 cubic feet of pipeline quality natural gas per any one-hour period.
    - g. The maximum HD-5 grade propane or pipeline quality natural gas heat input rate for \$2.209 will not exceed 40.0 million Btu's per any one-hour period.
    - h. **S2.209** may operate **8,760** hours per year.
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> 40 CFR Part 64 <u>Compliance Assurance Monitoring Program</u>
    - a. Periodic Compliance Testing
      - Permittee will conduct and record the following periodic compliance tests on the exhaust stack of CS-203. The periodic compliance tests for PM, PM<sub>10</sub>, NO<sub>x</sub>, VOC and SO<sub>2</sub> will be conducted on an annual basis with no more than one year and 90 days between compliance tests. The periodic compliance tests for CO and Hg will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests. The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition R.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in R.3.b. of this Section).
        - (i) Method 201A and 202 compliance tests in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
        - (ii) Method 5 or 17 (with back-half catch) compliance test for PM in accordance with 40 CFR Part 60, Appendix A (or alternative EPA reference methods approved by the Director).
        - (iii) Method 6, 7E, 10, 25/25A and 29 compliance tests for SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC and Hg in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (2) The Method 201A and Method 202 tests required in R.4.a.(1) of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in R.2.a. of this section.
      - (3) Compliance tests required under R.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in R.3.b. of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
      - (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of **CS-203** in accordance with 40 CFR Part 60, Appendix A (or an alternative reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
      - (5) The compliance tests required for NO<sub>x</sub> and CO under R.4.a.(1) of this Section will be conducted within 60 days of switching the fuel combusted in S2.209 as allowed under R.3.a of this Section.

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# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

- R. Emission Units S2.209 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
     CFR Part 64 Compliance Assurance Monitoring Program
    - b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the amount of sub bituminous coal, #2 fuel oil and HD-5 grade propane or pipeline quality natural gas combusted in **\$2.209**, and the combined throughput of ore, petroleum contaminated soil, carbon fines, and spent carbon from carbon adsorption controls of **\$2.209** on a daily basis. At the end of each calendar month, record the total monthly ore, petroleum contaminated soil, carbon fines, and spent carbon from carbon adsorption controls throughputs, each, and the total ore, petroleum contaminated soil, carbon fines, and spent carbon from carbon adsorption controls throughputs, each, for the previous 12 months.
- (2) Monitor and record the hours of operation of **\$2.209** on a daily basis.
- (3) Monitor and record sulfide sulfur content, total carbonaceous matter content and carbonate value of the ore processed in **\$2.209** on a daily basis.
- (4) Install, calibrate, operate and maintain devices for the measurement the fuel consumption rate for each fuel combusted in \$2.209.
- (5) Install, calibrate, operate and maintain devices for the measurement of the following control parameters for the following control equipment:

CO-201 operating temperature.

VS-201 pressure drop across the venturi wet dust scrubber.

VS-202 pressure drop across the venturi wet dust scrubber.

ESP-201 ESP transformer primary and secondary voltage and current.

HG-201 mercuric chloride solution line pressure prior to the scrubber tower spray header and inlet gas temperature.

- (6) Establish a procedure for the measurement of the following control parameter for the following control equipment: **HG-201** mercuric chloride solution concentration exiting the scrubber.
- (7) Conduct and record a reading of the control parameters specified under R.4.b.(5) of this Section for **HG-201** and **CO-201**, based on a one-hour period, once during each day of operation. Conduct and record a measurement of the mercuric chloride solution concentration specified under R.4.b.(6) of this Section once during each day of operation. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (8) Continuously monitor and record the control parameters specified under R.4.b.(5) for **VS-201**, **VS-202** and **ESP-201**. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (9) The indicator ranges for the two venturi wet scrubbers (VS-201 and VS-202) and the wet electrostatic precipitator (ESP-201) shall be defined as follows: The pressure drop for the two venturi wet scrubbers shall be maintained at or above 35 inches of water and the water flow rate shall be maintained at or above 300 gallons per minute. The primary voltage for both the A and B sides of the wet electrostatic precipitator shall be maintained at or above 110 volts, the primary current for both sides shall be maintained at or above 2 amps for the A side and 1 amp for the B side, the secondary voltage for both sides shall be maintained at or above 7 kilovolts for the A side and 3 kilovolts for the B side, and the secondary current for both sides shall be maintained at or above 8 milliamps for the A side and 3 milliamps for the B side. Excursions shall be defined as anytime the control parameters, based on a one-hour period, fall outside these indicator ranges.
- (10) The indicator ranges for the thermal CO oxidizer (CO-201) and the mercury scrubber (HG-201) shall be defined as follows:

  The operating temperature for CO-201 shall be maintained at or above 1,430°F. The head pressure of HG-201 shall be between 1 and 9 pounds per square inch (psi), the inlet gas stream temperature shall be between 32 and 134 degrees Fahrenheit, the mercury(II) chloride concentration shall be maintained at or above 1.0 gram per liter (g/I). Excursions shall be defined as anytime the control parameters, based on a one-hour period, for the oxidizer temperature, the scrubber head pressure, the scrubber inlet gas stream temperature and the mercury(II) chloride concentration fall outside these indicator ranges
- (11) Conduct and record an assessment of the visible emissions (excluding water vapor) from the single exhaust stack of CS-203 on a weekly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while S2.209 is operating and has the potential to create visible emissions. If CS-203 is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to S2.209 not operating or due to poor weather conditions.
- (12) Install, calibrate, operate and maintain continuous monitoring systems for the measurement of SO<sub>2</sub>, NO<sub>x</sub> and CO in the exhaust stack of **CS-203**. The systems shall meet appropriate performance specifications (such as 40 CFR 60.13 and 40 CFR 60, Appendix B, Performance Specifications 2 and 4, and NAC 445B. 256 through NAC 445B.267) and appropriate quality assurance procedures (such as 40 CFR 60, Appendix F). Performance specifications and quality assurance procedures shall be contained in a monitoring plan that must be submitted to the Director for approval not less than 90 days prior to the date of startup. Any revisions to the monitoring plan must be approved by the Director before becoming effective. The Director retains the authority to request, in writing, revisions to the monitoring plan.

### **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

### Section VI. Specific Operating Conditions (continued)

- R. Emission Units S2.209 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
     CFR Part 64 <u>Compliance Assurance Monitoring Program</u>
    - b. Monitoring and Recordkeeping
      - Install, calibrate, operate and maintain a continuous emissions monitoring system (CEMs) to measure stack gas volumetric flow rates in the exhaust stack of **CS-203**. The system shall meet appropriate performance specifications (such as 40 CFR 52, Appendix E, and NAC 445B. 256 through NAC 445B.267). Such performance specifications shall be contained in a monitoring plan that must be submitted to the Director for approval not less than 90 days prior to the date of startup. Any revisions to the monitoring plan must be approved by the Director before becoming effective. The Director retains the authority to request, in writing, revisions to the monitoring plan.
      - (14) Record hourly average mass emissions of SO<sub>2</sub>, NO<sub>x</sub> and CO, in terms of pounds per hour, using the data collected from the continuous monitoring systems required under R.4.b.(12) and (13). At the end of each calendar month, calculate and record the total monthly SO<sub>2</sub>, NO<sub>x</sub> and CO emissions and the total SO<sub>2</sub>, NO<sub>x</sub> and CO emissions for the previous 12 months. The first hourly average will be calculated by taking the average of the first three hours of data. Subsequent averages will drop off the oldest hour of data and add the newest hour's data to maintain a continuous hourly average based on the most recent three hours of data.
      - (15) Excess emissions for SO<sub>2</sub>, NO<sub>x</sub> or CO shall be defined as any 3-hour period during which the average emissions of SO<sub>2</sub>, NO<sub>x</sub> or CO, as measured by the CEMs devices or a compliance test, exceed the maximum emission limits set forth in R.2 of this Section.
      - (16) Maintain records of monitoring data (including periods of startup and shutdown, continuous monitoring systems evaluations, calibration checks, and adjustment and maintenance performed on these systems), compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (17) The hourly throughput rate in tons per hour for **S2.209** will be determined from the total daily throughput and the total daily hours of operation recorded above.
      - (18) The hourly coal consumption rate in tons per hour for **\$2.209** will be determined from the total daily coal consumption and the total daily hours of operation recorded above.
      - (19) The hourly #2 fuel oil consumption rate in gallons per hour for **S2.209** will be determined from the total daily #2 fuel oil consumption and the total daily hours of operation recorded above.
      - (20) The hourly propane or natural gas heat input rate in millions of Btu's per hour for **\$2.209** will be determined from the total daily propane or natural gas consumption and the total daily hours of operation recorded above.
      - (21) The required monitoring established in b.(1) through (20) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.209** is operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total daily throughput rate of ore, petroleum contaminated soil, carbon fines, and spent carbon from carbon adsorption controls, combined, in tons, for the corresponding date.
        - (iii) The total daily hours of operation for the corresponding date.
        - (iv) The corresponding average hourly throughput rate of ore, petroleum contaminated soil (pcs), carbon fines, and spent carbon from carbon adsorption controls, combined, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in b.(1) and (2) above.
        - (v) The total daily fuel consumption rate of gallons of HD-5 grade propane, tons of sub bituminous coal, gallons of #2 fuel oil or cubic feet of pipeline quality natural gas, for the corresponding date.
        - (vi) The corresponding average hourly fuel consumption rate of gallons of HD-5 grade propane, tons of sub bituminous coal, gallons of #2 fuel oil or cubic feet of pipeline quality natural gas. The average hourly fuel consumption rate will be determined from the daily fuel consumption rate and the total daily hours of operation recorded in b.(1) and (2) above.
        - (vii) Results of the one-hour period reading of the pressure drop across venturi wet dust scrubbers VS-201 and VS-202, each day that S2.209 is in operation.
        - (viii) Results of the one-hour period reading of the primary and secondary voltage and current on wet electrostatic precipitator **ESP-201**, each day that **S2.209** is in operation.
        - (ix) Results of the one-hour period reading of the operating temperature on thermal oxidizer **CO-201**, each day that **S2.209** is in operation.
        - (x) Results of the one-hour period readings of the operating head pressure, the inlet gas stream temperature and the mercury(II) chloride concentration of mercury scrubber **HG-201**, each day that **S2.209** is in operation.
        - (xi) Results and verification of the weekly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

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## Section VI. Specific Operating Conditions (continued)

- R. Emission Units S2.209 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> 40 CFR Part 64 Compliance Assurance Monitoring Program
    - c. Initial Compliance Testing After issuance of the revised permit conditions allowing petroleum contaminated soil, carbon fines, and spent carbon from carbon adsorption controls to be combusted in **\$2.209** 
      - (1) Within 60 days after achieving the maximum throughput rate for processing petroleum contaminated soil, carbon fines, and spent carbon from carbon adsorption controls in **S2.209**, but not later than 180 days after the commencement date of processing petroleum contaminated soil, carbon fines, and spent carbon from carbon adsorption controls per R.3.b. of this section, conduct the compliance tests required under R.4.a.(1) through (3) of this section for **PM**, **PM**<sub>10</sub>, **NO**<sub>x</sub>, **VOC**, **SO**<sub>2</sub>, and **CO**.
        - (i) Concurrent with each compliance test, monitor and record the hourly throughput rates of ore, petroleum contaminated soil, carbon fines, and spent carbon from carbon adsorption controls.
        - (ii) The compliance test results and throughout monitoring records will be used to verify that the emissions generated from the processing of petroleum contaminated soil, carbon fines, and spent carbon from carbon adsorption controls along with ore do not exceed the following emission factors expressed in terms of pounds of emissions per ton of total throughput (ore plus petroleum contaminated soil, carbon fines, and spent carbon from carbon adsorption controls): 0.006 lb PM/ton, 0.006 lb PM10/ton, 0.022 lb VOC/ton, 0.03681 lb NO₂/ton, 0.0449 lb SO₂/ton, and 0.04708 lb CO/ton. These emission factors are derived from the hourly emission limits under R.2. of this section divided by the maximum hourly allowable throughput rate under R.3.b. of this section.
      - (2) The hourly average mass emissions of SO<sub>2</sub>, NO<sub>x</sub> and CO recorded by the continuous emissions monitoring system required under R.4.b.(14) of this section may be used in lieu of the testing required for these pollutant under R.4.c.(1) of this section provided that three continuous hours of emissions data are collected to provide a 3-hour average emission rate for each pollutant in terms of pounds per hour and pounds of emissions per ton of total throughput (ore plus petroleum contaminated soil, carbon fines, and spent carbon from carbon adsorption controls).
  - Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
     Compliance with conditions R.1 through R.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC 445.746 (Other Sulfur Emitting Processes) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.2205 (Other Process which Emit Sulfur) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121)

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# Section VI. Specific Operating Conditions (continued)

S. Emission Units S2.210 and S2.211 location North 4,538.5 km, East 552.1 km, UTM (Zone 11)

#### S. System 19 - Roaster Circuit: Quenching Process

S 2.210 Roaster #1 quench tank

S 2.211 Roaster #2 guench tank

#### 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Air Pollution Equipment

100% of all process emissions from **S2.210** and **S2.211** will be ducted to a control system consisting of one venturi wet dust scrubber per quench tank (**VS-203** and **VS-204**, respectively). Emissions from **VS-203** and **VS-204** will be exhausted to the atmosphere through separate stacks. **VS-203** and **VS-204** will be operated in accordance with the manufacturer's recommendations at all times during operation of **S2.210** and **S2.211**, including startup and shutdown.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

On and after the date of startup of **S2.210** and **S2.211**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **VS-203** and **VS-204** the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **1.84** pounds per hour for **VS-203** and **VS-204**, each.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **1.84** pounds per hour for **VS-203** and **VS-204**, each.
- c. NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stacks of VS-203 and VS-204, each will not equal or exceed 20% in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stacks of **VS-203** and **VS-204**, each will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Operating Parameters**

- a. The maximum allowable throughput rate for **\$2.210** and **\$2.211** will not exceed **500.0** tons of ore per any one-hour period, each.
- b. **S2.210 and S2.211** may operate **8,760** hours per year, each.

#### NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>

40 CFR Part 64 Compliance Assurance Monitoring Program

- a. Periodic Compliance Testing
  - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stacks of VS-203 and VS-204. The periodic compliance tests will be conducted on an annual basis with no more than one year and 90 days between compliance tests. The compliance tests will consist of three valid runs (except as provided under I.U.5 of this operating permit) at the maximum achievable throughput rates (subject to Condition S.4.a.(3) of this Section and not to exceed the maximum allowable throughputs as established in S.3.a. of this Section):
    - (i) A Method 201A performance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>, on each stack.
    - (ii) A Method 5 or 17 compliance test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM, on each stack.
  - (2) Permittee may substitute the Method 5 or 17 test for the Method 201A test.
  - (3) Compliance tests required under S.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in S.3.a. of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
  - (4) Concurrent with the periodic PM and PM<sub>10</sub> compliance tests, conduct and record a Method 9 visible emission test on the exhaust stacks of VS-203 and VS-204 each, in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial compliance test, then the visible emission test will be rescheduled as soon after the initial compliance test as practical, but not later than 30 days thereafter.

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### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- S. Emission Units S2.210 and S2.211 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
     CFR Part 64 <u>Compliance Assurance Monitoring Program</u>
    - b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the ore throughput of **S2.210 and S2.211** on a daily basis.
- (2) Monitor and record the hours of operation of **S2.210 and S2.211** on a daily basis.
- (3) Install, calibrate, operate and maintain devices for the measurement of the venturi pressure drop and water flow rate of VS-203 and VS-204, separately.
- (4) Conduct and record a reading of the venturi pressure drops and water flow rates of VS-203 and VS-204 each, <u>based on a one-hour period</u>, once during each day of operation. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (5) The indicator range for the venturi pressure drop for **VS-203 and VS-204** each shall be maintained at or above **16 inches of water**. The water flow rate for **VS-203 and VS-204** each shall be maintained at or above **70 gallons per minute**. Excursions shall be defined as anytime the venturi pressure drop and the water flow rate, <u>based on a one-hour period</u>, falls outside these indicator ranges.
- (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from the separate exhaust stacks of VS-203 and VS-204 each, on a weekly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while S2.210 and S2.211 are operating and have the potential to create visible emissions. If VS-203 and VS-204 are shut down for maintenance, or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to S2.210 and S2.211 not operating or due to poor weather conditions.
- (7) Install, calibrate, operate, and maintain devices for the measurement of the pressure in the pressure relief vents for S2.210 and S2.211. Record any monitored occurrences when the pressure reading falls outside of the specified operating range and record any corrective actions taken.
- (8) Maintain records of the specified operating range for the pressure relief vents on site and have available for inspection upon request. The specified operating range will be determined by the Permittee after installation of the monitoring devices.
- (9) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (10) The hourly throughput rate in tons per hour for **S2.210 and S2.211** will be determined from the total daily throughput and the total daily hours of operation recorded above.
- (11) The required monitoring established in b.(1) through (10) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.210 and S2.211** each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
  - (iii) The total daily hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in b.(1) and (2) above.
  - (v) Results of the one-hour period readings of the pressure drop and water flow rate across venturi wet dust scrubbers VS-203 and VS-204, each day that S2.210 and S2.211 each, are in operation.
  - (vi) Results and verification of the weekly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - (vii) The Director must be notified within 24 hours for any event when the pressure relief vent(s) opens. The telephone number for the notification is (775) 687-9350.
  - (viii) Permittee shall provide the Director, within 15 days after any opening of the pressure relief vents, information that includes at least the following:
    - (a) The identity of the pressure relief vent that opened.
    - (b) The date, start and end time, and duration that the pressure relief vent was open.
    - (c) An assessment of the cause of the events and any corrective actions taken.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

- S. Emission Units S2.210 and S2.211 (continued)
  - 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program Shielded Requirements</u>

Compliance with conditions S.1 through S.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

T. Emission Units S2.212 and PF1.204 location North 4,538.5 km, East 552.2 km, UTM (Zone 11)

#### T. System 20 - Ancillary Roaster Processes: Coal Silo

S 2.212 Coal silo, 200 ton, loading

PF 1.204 Coal silo discharge to screw conveyor

#### 1. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*

#### Air Pollution Equipment

- Emissions from \$2.212 will be ducted to a control system consisting of a vent filter (PDC-201) with 100% capture.
- Emissions from PF1.204 will be controlled by an enclosure that completely encloses the transfer point.

#### 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### **Emission Limits**

- a. On and after the date of startup of **S2.212**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **PDC-201**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.32** pound per hour, nor exceed **0.10** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.32** pound per hour, nor exceed **0.10** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust vent of PDC-201 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vent of PDC-201 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.204**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.204**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.04** pound per hour, nor exceed **0.08** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.04** pound per hour, nor exceed **0.08** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.204 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.204** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Operating Parameters

- a. The maximum allowable loading rate for **\$2.212** will not exceed **120.0** tons of coal per any one-hour period, nor more than **75,000** tons of coal per year, based on a 12-month rolling period.
- b. The maximum allowable throughput rate for **PF1.204** will not exceed **20.0** tons of coal per any one-hour period, nor more than **75,000** tons of coal per year, based on a 12-month rolling period.
- c. **\$2.212** and **PF1.204** may operate **8,760** hours per year, each.

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- T. Emission Units S2.212 and PF1.204 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - Monitoring, Recordkeeping, Reporting and Compliance
       On and after the date of initial startup, Permittee will:
      - Monitor and record the amount of coal loaded into \$2.212 each day loading occurs. At the end of each calendar month, record the total monthly coal throughput and the total coal throughput for the previous 12 months.
      - (2) Monitor and record the amount of coal discharged from PF1.204 on a monthly basis. The amount of coal will be based on purchasing receipts and measurements of the level of coal in the silo at the beginning and end of the month. At the end of each calendar month, record the total coal throughput for the previous 12 months.
      - (3) Monitor and record the hours of operation of S2.212 and PF1.204 on a monthly basis.
      - (4) Install, calibrate, operate and maintain a device for the measurement of the level of coal in the silo.
      - (5) Conduct and record an inspection of **PDC-201** on a quarterly basis noting the condition of the filter material and housing. Record any corrective actions taken.
      - (6) Conduct and record an inspection of the enclosure on PF1.204 on a monthly basis. Record any corrective actions taken.
      - (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **PDC-201** and from **PF1.204** each on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.212 and PF1.204** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.212 and PF1.204** not operating or due to poor weather conditions.
      - (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (9) The hourly throughput rate in tons per hour for **\$2.212** and **PF1.204** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
      - (10) The required monitoring established in (1) through (9) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.212 and PF1.204** each, are operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total daily and monthly throughput rate of ore, in tons, for the corresponding date.
        - (iii) The total monthly hours of operation for the corresponding date.
        - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total monthly hours of operation recorded in (1), (2) and (3) above.
        - (v) Results and condition of the quarterly inspection of the vent filter on **\$2.212**, and any corrective actions taken.
        - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - 5. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*

#### Shielded Requirements

Compliance with conditions T.1 through T.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

U. Emission Units S2.213 through S2.215 location North 4,538.4 km, East 552.1 km, UTM (Zone 11)

#### U. System 21 - Ancillary Roaster Processes: Propane Vaporizers

S 2.213 Propane vaporizer #1
S 2.214 Propane vaporizer #2
S 2.215 Propane vaporizer #3

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

**S2.213** to **S2.215** will be operated in a manner that minimizes emissions.

NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

**Emission Limits** 

On and after the date of startup of S2.213 through S2.215, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of S2.213 through S2.215 the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.071** pound per hour, each unit.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed 0.071 pound per hour, each unit.
- c. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **0.004** pound per hour, each unit.
- d. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed **1.36** pounds per hour, each unit.
- e. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere will not exceed 0.42 pound per hour, each unit.
   f. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will
- not exceed **0.52** pound per hour, each unit.
- g. NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stacks of S2.213 through S2.15 each, will not equal or exceed 20% in accordance with NAC 445B.22017.
- h. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stacks of **S2.213 through S2.215** each, will not equal or exceed **20**% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Operating Parameters

- a. **S2.213 through S2.215** may combust HD-5 grade propane only.
- b. The maximum HD-5 grade propane heat input rate for **S2.213 through S2.215** will not exceed **4.7 million Btu's** per any one-hour period, each unit.
- c. The maximum fuel consumption rate for **S2.213 through S2.215** will not exceed **51.0 gallons** of HD-5 grade propane per any one-hour period, each unit.
- d. **S2.213 through S2.215** may operate **8,760** hours per year, each unit.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

- U. Emission Units S2.213 through S2.215 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - a. <u>Monitoring, Recordkeeping, Reporting and Compliance</u>
       On and after the date of initial startup, Permittee will:
      - (1) Monitor and record the amount of HD-5 grade propane combusted in S2.213 through S2.215, each, on a monthly basis.
      - (2) Monitor and record the hours of operation of S2.213 through S2.215, each, on a monthly basis.
      - (3) Install, calibrate, operate and maintain devices for the measurement fuel consumption rate of S2.213 through S2.215, each.
      - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (5) The hourly propane heat input rate in millions of Btu's per hour for **S2.213 through S2.215** will be determined from the total monthly propane consumption and the total monthly hours of operation recorded above.
      - (6) The required monitoring established in (1) through (5) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.213 through S2.215** each, are operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total monthly hours of operation for the corresponding date.
        - (iii) The total monthly fuel consumption rate of gallons of HD-5 grade propane for the corresponding date.
        - (iv) The corresponding average hourly fuel consumption rate of gallons of HD-5 grade propane. The average hourly fuel consumption rate will be determined from the monthly fuel consumption rate and the total monthly hours of operation recorded in (1) and (2) above.
  - NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Shielded Requirements</u>

Compliance with conditions U.1 through U.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

V. Emission Units S2.216 and PF1.205 location North 4,538.4 km, East 552.1 km, UTM (Zone 11)

V. System 22 - Ancillary Roaster Processes: Slaked Lime Silo

S 2.216 Lime silo, slaking, 1,000 ton, loading

PF 1.205 Lime silo, slaking, discharge to screw conveyor

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from **\$2.216** will be ducted to a control system consisting of a vent filter (**PDC-202**) with 100% capture.
- b. Emissions from PF1.205 will be controlled by an enclosure that completely encloses the transfer point.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **S2.216**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **PDC-202**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.32** pound per hour, nor exceed **0.34** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.32** pound per hour, nor exceed **0.34** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust vent of PDC-202 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vent of PDC-202 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.205**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.205**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.08 pound per hour, nor exceed 0.25 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.08** pound per hour, nor exceed **0.25** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.205 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.205** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### **Operating Parameters**

- a. The maximum allowable loading rate for **S2.216** will not exceed **120.0** tons of lime per any one-hour period, nor more than **250,000** tons of lime per year, based on a 12-month rolling period.
- b. The maximum allowable throughput rate for **PF1.205** will not exceed **40.0** tons of lime per any one-hour period, nor more than **250,000** tons of lime per year, based on a 12-month rolling period.
- c. **S2.216** and **PF1.205** may operate **8,760** hours per year, each.

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- V. Emission Units S2.216 and PF1.205 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - a. Monitoring, Recordkeeping, Reporting and Compliance
      On and after the date of initial startup, Permittee will:
      - (1) Monitor and record the amount of lime loaded into **S2.216** each day loading occurs. At the end of each calendar month, record the total monthly lime throughput and the total lime throughput for the previous 12 months.
      - (2) Monitor and record the amount of lime discharged from **PF1.205** on a monthly basis. The amount of lime will be based on purchasing receipts and measurements of the level of lime in the silo at the beginning and end of the month. At the end of each calendar month, record the total lime throughput for the previous 12 months.
      - (3) Monitor and record the hours of operation of S2.216 and PF1.205 each on a monthly basis.
      - (4) Install, calibrate, operate and maintain a device for the measurement of the level of lime in the silo.
      - (5) Conduct and record an inspection of **PDC-202** on a quarterly basis noting the condition of the filter material and housing. Record any corrective actions taken.
      - (6) Conduct and record an inspection of the enclosure on PF1.205 on a monthly basis. Record any corrective actions taken.
      - (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **PDC-202** and from **PF1.205** each on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.216 and PF1.205** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.216 and PF1.205** not operating or due to poor weather conditions.
      - (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (9) The hourly throughput rate in tons per hour for **PF1.205** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
      - (10) The hourly loading rate in tons per hour for **S2.216** will be determined from the total daily throughput and the total daily hours of operation recorded above.
      - (11) The required monitoring established in (1) through (10) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.216 and PF1.205** each, are operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total daily and monthly throughput rate of lime, in tons, for the corresponding date.
        - (iii) The total monthly hours of operation for the corresponding date.
        - (iv) The corresponding average hourly throughput rate of lime, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total monthly hours of operation recorded in (1), (2) and (3) above.
        - (v) Results and condition of the quarterly inspection of the vent filter on S2.216, and any corrective actions taken.
        - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions V.1 through V.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

W. Emission Units S2.217, PF1.206, and PF1.207 location North 4,538.5 km, East 552.3 km, UTM (Zone 11)

#### W. System 23 - Ancillary Roaster Processes: Roaster Mill Lime Silo

S 2.217 Roaster mill lime silo, 500 ton, loading

PF 1.206 Roaster mill lime silo discharge to mill #1 screw conveyor

PF 1.207 Roaster mill lime silo discharge to mill #2 screw conveyor

#### 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Air Pollution Equipment

- a. Emissions from S2.217 will be ducted to a control system consisting of a vent filter (PDC-203) with 100% capture.
- b. Emissions from PF1.206 and PF1.207 will be controlled by an enclosure that completely encloses the transfer point.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **S2.217**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **PDC-203**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.32** pound per hour, nor exceed **0.17** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.32** pound per hour, nor exceed **0.17** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust vent of PDC-203 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vent of PDC-203 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - On and after the date of startup of PF1.206 and PF1.207, Permittee will not discharge or cause the discharge into the atmosphere from PF1.206 and PF1.207, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.04** pound per hour, total, nor exceed **0.13** ton per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.04** pound per hour, total, nor exceed **0.13** ton per year, total, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.206** and **PF1.207** will not equal or exceed **20%** in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.206** and **1.207** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Operating Parameters

- The maximum allowable loading rate for **\$2.217** will not exceed **120.0** tons of lime or soda ash per any one-hour period, nor more than **125,000** tons of lime or soda ash per year, based on a 12-month rolling period.
- b. The maximum allowable throughput rate for **PF1.206** and **PF1.207** will not exceed **20.0** tons of lime or soda ash per any one-hour period, total, nor more than **125,000** tons of lime or soda ash per year, total, based on a 12-month rolling period.
- c. **S2.217**, **PF1.206** and **PF1.207** may operate **8,760** hours per year, each.

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- W. Emission Units S2.217, PF1.206, and PF1.207 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - a. Monitoring, Recordkeeping, Reporting and Compliance
       On and after the date of initial startup, Permittee will:
      - Monitor and record the amount of lime or soda ash loaded into S2.217 and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly lime or soda ash throughput and the total lime or soda ash throughput for the previous 12 months.
      - (2) Monitor and record the amount of lime or soda ash discharged from PF1.206 and PF1.207 on a monthly basis. The amount of lime or soda ash will be based on purchasing receipts and measurements of the level of lime or soda ash in the silo at the beginning and end of the month. At the end of each calendar month, record the total lime or soda ash throughput for the previous 12 months.
      - (3) Monitor and record the hours of operation of PF1.206 and PF1.207 on a monthly basis.
      - (4) Install, calibrate, operate and maintain a device for the measurement of the level of lime or soda ash in the silo.
      - (5) Conduct and record an inspection of PDC-203 on a quarterly basis noting the condition of the filter material and housing. Record any corrective actions taken.
      - (6) Conduct and record an inspection of the enclosure on **PF1.206 and 1.207** on a monthly basis. Record any corrective actions taken.
      - (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **PDC-203** and from **PF1.206** and **PF1.207** each on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.217, PF1.206** and **PF1.207** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.217, PF1.206** and **PF1.207** not operating or due to poor weather conditions.
      - (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (9) The hourly throughput rate in tons per hour for **PF1.206 and PF1.207** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
      - (10) The hourly loading rate in tons per hour for \$2.217 will be determined from the total daily throughput and the total daily hours of operation recorded above.
      - (11) The required monitoring established in (1) through (10) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that S2.217, PF1.206 and PF1.027 each, are operating:
         (i) The calendar date of any required monitoring.
        - (ii) The total daily and monthly throughput rate of lime or soda ash, in tons, for the corresponding date.
        - (iii) The total daily and monthly hours of operation for the corresponding date.
        - (iv) The corresponding average hourly throughput rate of lime or soda ash, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in (1), (2) and (3) above.
        - (v) Results and condition of the quarterly inspection of the vent filter on S2.217, and any corrective actions taken.
        - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Shielded Requirements</u>

Compliance with conditions W.1 through W.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

X. Emission Units S2.218 and PF1.208 location North 4,538.5 km, East 552.1 km, UTM (Zone 11)

#### X. System 24 - Ancillary Roaster Processes: Soda Ash Silo

S 2.218 Soda ash silo, 200 ton, loading

PF 1.208 Soda ash silo discharge to screw conveyor

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- Emissions from \$2.218 will be ducted to a control system consisting of a vent filter (PDC-204) with 100% capture.
- b. Emissions from PF1.208 will be controlled by an enclosure that completely encloses the transfer point.

#### 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### **Emission Limits**

- a. On and after the date of startup of **S2.218**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **PDC-204**, the following pollutants in excess of the following specified limits:
  - 1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.32** pound per hour, nor exceed **0.14** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.32** pound per hour, nor exceed **0.14** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust vent of PCD-204 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vent of PDC-204 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.208**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.208**, the following pollutants in excess of the following specified limits:
  - 1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.08 pound per hour, nor exceed 0.10 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.08** pound per hour, nor exceed **0.10** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.208** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.208** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Operating Parameters

- a. The maximum allowable loading rate for **\$2.218** will not exceed **120.0** tons of soda ash per any one-hour period, nor more than **100,000** tons of soda ash per year, based on a 12-month rolling period.
- b. The maximum allowable throughput rate for **PF1.208** will not exceed **40.0** tons of soda ash per any one-hour period, nor more than **100,000** tons of soda ash per year, based on a 12-month rolling period.
- c. **S2.218** and **PF1.208** may operate **8,760** hours per year, each.

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- X. Emission Units S2.218 and PF1.208 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - a. Monitoring, Recordkeeping, Reporting and Compliance
      On and after the date of initial startup, Permittee will:
      - (1) Monitor and record the amount of soda ash loaded into S2.218 and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly soda ash throughput and the total soda ash throughput for the previous 12 months.
      - (2) Monitor and record the amount of soda ash discharged from **PF1.208** on a monthly basis. The amount of soda ash will be based on purchasing receipts and measurements of the level of soda ash in the silo at the beginning and end of the month. At the end of each calendar month, record the total soda ash throughput for the previous 12 months.
      - (3) Monitor and record the hours of operation of **PF1.208** on a monthly basis.
      - (4) Install, calibrate, operate and maintain a device for the measurement of the level of soda ash in the silo.
      - (5) Conduct and record an inspection of PDC-204 on a quarterly basis noting the condition of the filter material and housing. Record any corrective actions taken.
      - (6) Conduct and record an inspection of the enclosure on PF1.208 on a monthly basis. Record any corrective actions taken.
      - (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **PDC-204** and from **PF1.208** each on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.218 and PF1.208** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.218 and PF1.208** not operating or due to poor weather conditions.
      - (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (9) The hourly throughput rate in tons per hour for PF1.208 will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
      - (10) The hourly loading rate in tons per hour for **S2.218** will be determined from the total daily throughput and the total daily hours of operation recorded above.
      - (11) The required monitoring established in (1) through (10) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.218 and PF1.208** each, are operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total daily and monthly throughput rate of soda ash, in tons, for the corresponding date.
        - (iii) The total daily and monthly hours of operation for the corresponding date.
        - (iv) The corresponding average hourly throughput rate of soda ash, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in (1), (2) and (3) above.
        - (v) Results and condition of the quarterly inspection of the vent filter on \$2.218, and any corrective actions taken.
        - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions X.1 through X.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

Y. Emission Unit S2.219 location North 4,538.5 km, East 552.1 km, UTM (Zone 11)

#### Y. System 25 - Ancillary Roaster Processes: Fuel Oil Storage

S 2.219 Fuel Oil storage tank, 16,000 gallon capacity

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

\$2.219 will be a fixed roof tank equipped for submerged filling.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Emission Limits** 

On and after the date of startup of **S2.219**, Permittee will not discharge or cause the discharge into the atmosphere from **S2.219**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.02 ton per year, based on a 12-month rolling period.
- b. NAC 445B.22017 (State Only Requirement) The opacity from **S2.219** will not equal or exceed 20% in accordance with NAC 445B 22017
- c. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from \$2.219 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Operating Parameters**

- a. S2.219 may store #2 fuel oil only.
- b. The maximum allowable fuel throughput rate for **S2.219** will not exceed **2,400,000** gallons of #2 fuel oil per year, based on a 12-month rolling period.
- c. **S2.219** may operate **8,760** hours per year.
- 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
  - a. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the amount of fuel loaded in S2.219 on a monthly basis. At the end of each calendar month, record the total fuel throughput for the previous 12 months.
- (2) Maintain records of the tank dimensions and capacity for the life of \$2.219 in accordance with 40 CFR Part 60, Subpart Kb.
- (3) No monitoring of opacity is required as long as **S2.219** stores #2 fuel oil only.
- (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (5) The required monitoring established in (1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.219** is operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total monthly fuel throughput rate for the corresponding date.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program Shielded Requirements

N/A

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 **CLASS I AIR QUALITY OPERATING PERMIT** SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

Emission Unit S2.220 location North 4,538.6 km, East 552.1 km, UTM (Zone 11)

Z. System 26 - Ancillary Roaster Processes: Liquid Oxygen Vaporizer

2.220 Liquid oxygen vaporizer

NAC 445B.3405 (NAC 445B.316) Part 70 Program 1. Air Pollution Equipment \$2.220 will be operated in a manner that minimizes emissions.

NAC 445B.3405 (NAC 445B.316) Part 70 Program **Emission Limits** 

On and after the date of startup of \$2.220, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of \$2.220 the following pollutants in excess of the following specified limits:

- NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.35 pound per hour, nor exceed 0.23 ton per year, based on a 12-month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.35 pound per hour, nor exceed 0.23 ton per year, based on a 12-month rolling period.
- NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO2 (sulfur dioxide) to the atmosphere will not exceed 0.021 pound per hour, nor exceed 0.014 ton per year, based on a 12-month rolling period.
- d NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 4.14 pounds per hour, nor exceed 2.70 tons per year, based on a 12-month rolling period.
- NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere will not exceed 8.28 pounds per hour, nor exceed 5.40 tons per year, based on a 12-month rolling period.
- NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will f. not exceed 2.53 pounds per hour, nor exceed 1.65 tons per year, based on a 12-month rolling period.
- NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of \$2.220 will not equal or exceed 20% in g. accordance with NAC 445B.22017.
- NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stack of \$2.220 will not equal or exceed 20% h. for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
  - \$2.220 may combust HD-5 grade propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
  - b. The maximum HD-5 grade propane or pipeline quality natural gas heat input rate for \$2.220 will not exceed 23 million Btu's per any one-hour period, nor more than 30,000 million Btu's per year, based on a 12-month rolling period.
  - The maximum fuel consumption rate for \$2.220 will not exceed 251.0 gallons of HD-5 grade propane per any one-hour period. C.
  - The maximum fuel consumption rate for \$2.220 will not exceed 23,000.0 cubic feet of pipeline quality natural gas per any one-hour d.
  - S2.220 may operate 8,760 hours per year.

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

- Z. Emission Unit S2.220 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - Monitoring, Recordkeeping, Reporting and Compliance
       On and after the date of initial startup, Permittee will:
      - (1) Monitor and record the type (HD-5 grade propane or pipeline quality natural gas) and amount of fuel combusted in \$2.220 on a daily basis. At the end of each calendar month, record the total monthly fuel use, and the total fuel use for the previous 12 months.
      - (2) Monitor and record the hours of operation of **\$2.220** on a daily basis.
      - (3) Install, calibrate, operate and maintain a device for the measurement of the fuel consumption rate of \$2.220.
      - (4) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of \$2.220 on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while \$2.220 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to \$2.220 not operating or due to poor weather conditions.
      - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (6) The hourly fuel heat input rate in millions of Btu's per hour for **S2.220** will be determined from the total daily fuel consumption and the total daily hours of operation recorded above.
      - (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.220** is operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total daily hours of operation for the corresponding date.
        - (iii) The total daily fuel consumption rate of gallons of HD-5 grade propane or cubic feet of pipeline quality natural gas for the corresponding date.
        - (iv) The corresponding average hourly fuel consumption rate of gallons of HD-5 grade propane or cubic feet of pipeline quality natural gas. The average hourly fuel consumption rate will be determined from the daily fuel consumption rate and the total daily hours of operation recorded in (1) and (2) above.
        - (v) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
    - b. Periodic Compliance Testing
      - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **S2.220**. The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests. The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable heat input rate (subject to Condition Z.4.b.(2) of this Section and not to exceed the maximum allowable heat input rate as established in Z.3.b. of this Section).
        - (i) Method 7E compliance test for NO<sub>x</sub> in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
        - (ii) Method 10 compliance test for CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (2) Compliance tests required under Z.4.b.(1) of this Section that are conducted below the maximum allowable fuel rate, as established in Z.3.b. of this Section, will be subject to the Director's review to determine if the fuel rate during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

#### Z. Emission Unit S2.220 (continued)

5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Shielded Requirements

Compliance with conditions Z.1 through Z.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

AA. Emission Unit S2.221 location North 4,538.5 km, East 552.2 km, UTM (Zone 11)

AA. System 27 - Ancillary Roaster Processes: Vacuum Housekeeping System

S 2.221 Vacuum housekeeping system

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Air Pollution Equipment</u>

Emissions from S2.221 will be ducted to a control system consisting of a baghouse (DC-210). DC-210 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.221, including startup and shutdown. Maximum volume flow rate of DC-210 will not exceed 6,000 standard cubic feet per minute (scfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director). DC-210 filter media will consist of polyester with a maximum air-to-cloth ratio of 12:1. The capture efficiency of the control system will be 100% such that all process emissions from S2.221 will be captured and ducted to DC-210.

2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Emission Limits</u>

On and after the date of startup of **S2.221**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **DC-210**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.51 pound per hour.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed 0.51 pound per hour.
- NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of DC-210 will not equal or exceed 20% in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stack of **DC-210** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  Operating Parameters
  - a. **\$2.221** may operate 8,760 hours per year.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

#### AA. Emission Unit S2.221

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. <u>Monitoring, Recordkeeping, Reporting and Compliance</u>
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the hours of operation of **\$2.221** on a daily basis.
    - (2) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across Baghouse DC-210.
    - Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of DC-210 on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while S2.221 is operating and has the potential to create visible emissions. If DC-210 is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to S2.221 not operating or due to poor weather conditions.
    - (4) Maintain records of the manufacturer's recommended operating range for the baghouse pressure drop on-site and available for inspection upon request.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The required monitoring established in (1) through (5) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.221** is operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily hours of operation for the corresponding date.
      - (iii) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Shielded Requirements</u>

Compliance with conditions AA.1 through AA.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

AB. Emission Unit S2.222 location North 4,538.4 km, East 552.2 km, UTM (Zone 11)

#### AB. System 28 - Ancillary Roaster Processes: Scrubber Water Cooling Tower

S 2.222 Scrubber water cooling tower

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

Emissions from **\$2.222** will be controlled by drift eliminators with a manufacturer's guaranteed drift loss of **0.0005%** of total circulating flow, and operation in a manner that minimizes emissions.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Emission Limits** 

On and after the date of startup of **S2.222**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.222**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.016** pound per hour.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.016** pound per hour.
- 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. Circulating water flow rate of \$2.222 will not exceed 8,000 gallons per minute.
- b. The total dissolved solids (TDS) content of the circulating water of \$2.222 will not exceed 2,500 ppm.
- c. The use of chromium-based water treatment chemicals is prohibited.
- d. **\$2.222** may operate **8,760** hours per year.
- 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
  - Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the TDS value of the circulating water of **S2.222** on a calendar quarter basis.
- (2) The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.222** is operating:
  - (i) The calendar date of any required monitoring.
  - (ii) Results of the TDS value of the circulating water monitored for each calendar quarter.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Shielded Requirements

The following requirements are not applicable to \$2.222:

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.721 (Visible Emissions from Stationary Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

445B.22017.1 (Maximum Opacity of Emissions) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

AC. Emission Unit S2.223 location North 4,538.4 km, East 552.2 km, UTM (Zone 11)

#### AC. System 29 - Ancillary Roaster Processes: Quench Water Cooling Tower

S 2.223 Quench water cooling tower

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

Emissions from **\$2.223** will be controlled by drift eliminators with a manufacturer's guaranteed drift loss of 0.001% of total circulating flow, and operation in a manner that minimizes emissions.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

On and after the date of startup of **S2.223**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.223**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.31** pound per hour.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.31** pound per hour.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Operating Parameters

- a. Circulating water flow rate of **\$2.223** will not exceed **15,000** gallons per minute.
- b. The total dissolved solids (TDS) content of the circulating water of \$2.223 will not exceed 15,000 ppm.
- c. The use of chromium-based water treatment chemicals is prohibited.
- d. **\$2.223** may operate **8,760** hours per year.

#### NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>

a. Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the TDS value of the circulating water of **S2.223** on a calendar quarter basis.
- (2) The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.223** is operating:
  - (i) The calendar date of any required monitoring.
  - (ii) Results of the TDS value of the circulating water monitored for each calendar quarter.

#### 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Shielded Requirements

The following requirements are not applicable to \$2.223:

#### Applicable SIP Requirements (Revised as of February 2002):

NAC 445.721 (Visible Emissions from Stationary Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements (Revised as of February 2003):

445B.22017.1 (Maximum Opacity of Emissions) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).



#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

AD - AV. System 30 through 48 (Removed from permit on January 3, 2002)

Systems 30 - 48 - Meikle Backfill Crushing & Screening Plant		
1 -	1.301	Jaw Crusher Pan Feeder (load)
PF	1.302	Jaw Crusher Pan Feeder (discharge)
PF	1.303	Jaw Crusher
PF	1.304	Conveyor – Jaw Outlet to Primary Screen Feeder Belt (discharge)
PF	1.305	Conveyor – Primary Screen Feeder Belt (discharge)
PF	1.306	Primary Screen
PF	1.307	Conveyor – Primary Screen Underbelt (discharge)
PF	1.308	Conveyor – Transfer to line Aggregate Stockpile (discharge)
PF	1.309	Conveyor – Primary Screen to line Aggregate Transfer Belt (discharge)
PF	1.310	Conveyor – Line Aggregate Transfer Belt (discharge)
PF	1.311	Conveyor – Primary Screen to Cone Crusher (discharge)
PF	1.312	Cone Crusher
PF	1.313	Conveyor – Cone to Secondary Screen Transfer (discharge)
PF	1.314	Secondary Screen
PF	1.315	Conveyor – Secondary Screen to Cone Feed Return Belt (discharge)
PF	1.316	Conveyor – Cone Feed Return Belt (discharge)
PF	1.317	Conveyor – Secondary Screen to Scale Conveyor Belt (discharge)
PF	1.318	Conveyor – Scale Conveyor Belt (discharge)
PF	1.319	Stacker – Transfer to Course Aggregate Stockpile (discharge)
PF	1.320	Stacker – Spare Stacker Conveyor

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

AW. Emission Units PF1.119 and PF1.120 location North 4,539.3 km, East 552.0 km, UTM (Zone 11)

#### AW. System 49 - Meikle Backfill/Cement Feed Plant Feed Hopper

PF 1.119 Feed hopper (loading)

PF 1.120 Feed hopper (discharge)

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from the load point of **PF1.119** will be controlled by a pneumatic water spray system. The pneumatic water spray system will be operated at all times **PF1.119** operates.
- b. Emissions from **PF1.120** will be controlled by an enclosure.

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Emission Limits

- a. On and after the date of startup of **PF1.119**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.119** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.074** pound per hour, nor more than **0.066** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.035** pound per hour, nor more than **0.032** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.119** will not equal or exceed **20 percent** in accordance with NAC 445B.22017.
  - 4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.119** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.120**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.120** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.735** pound per hour, nor more than **0.662** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.350** pound per hour, nor more than **0.315** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.120** will not equal or exceed **20 percent** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.120** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- c. New Source Performance Standards (NSPS) Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.120** will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Fugitive emissions from PF1.120 will not exceed 10 percent opacity. (40 CFR Part 60.672(b))
- (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction (40 CFR Part 60.11(c)).
- At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.120** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

### 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### **Operating Parameters**

- a. The maximum allowable loading rate for **PF1.119** will not exceed **500.0** tons of aggregate per any one-hour period, nor more than **900,000** tons of aggregate per year, based on a 12-month rolling period.
- b. The maximum allowable discharge rate for **PF1.120** will not exceed **500.0** tons of aggregate per any one-hour period, nor more than **900,000** tons of aggregate per year, based on a 12-month rolling period.
- c. PF1.119 and PF1.120 may operate 8,760 hours per year, each.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

## AW. Emission Units PF1.119 and PF1.120 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring, Recordkeeping, Reporting and Compliance
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of **PF1.119 and PF1.120** each on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.119** and **PF1.120** each on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.119 on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test of the visible emissions (excluding water vapor) from PF1.120 on a monthly basis. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.119 and PF1.120 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visible emissions assessment or Method 9 visible emissions test could not be conducted due to PF1.119 and PF1.120 not operating or due to poor weather conditions.
    - (4) Inspect the pneumatic water spray system on **PF1.119** once during each day of operation to verify that it is operating as designed. Record the inspection results and any corrective actions taken.
    - (5) Inspect the enclosure on **PF1.120** on a monthly basis to verify that the enclosure is intact. Record the inspection results and any corrective actions taken.
    - (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (7) The hourly throughput rate in tons per hour for **PF1.119 and PF1.120** each will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (8) The required monitoring established in (1) through (7) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.119 and PF1.120** each, are operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily throughput rate of aggregate, in tons, for the corresponding date.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of aggregate, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
      - v) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
     Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions AW.1 through AW.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

AX. Emission Unit PF1.121 location North 4,539.3 km, East 552.0 km, UTM (Zone 11)

#### AX. System 50 - Meikle Backfill/Cement Feed Plant Feed Conveyor

PF 1.121 Feed conveyor (discharge)

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Air Pollution Equipment</u>

Emissions from PF1.121 will be controlled by an enclosure.

- 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Emission Limits</u>
  - a. On and after the date of startup of **PF1.121**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.121** the following pollutants in excess of the following specified limits:
    - 1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.735** pound per hour, nor more than **0.662** ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.350** pound per hour, nor more than **0.315** ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.121** will not equal or exceed **20 percent** in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.121** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. New Source Performance Standards (NSPS) Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
    - On and after the sixtieth day after achieving the maximum production rate at which **PF1.121** will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
    - (1) Fugitive emissions from **PF1.121** will not exceed **10 percent** opacity. (40 CFR Part 60.672(b))
    - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction (40 CFR Part 60.11(c)).
    - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.121** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
- 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  Operating Parameters
  - a. The maximum allowable throughput rate for **PF1.121** will not exceed **500.0** tons of aggregate per any one-hour period, nor more than **900,000** tons of aggregate per year, based on a 12-month rolling period.
  - b. **PF1.121** may operate **8,760** hours per year.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

### AX. Emission Unit PF1.121 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring, Recordkeeping, Reporting and Compliance
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of **PF1.121** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.121** on a daily basis.
    - (3) Conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test of the visible emissions (excluding water vapor) from **PF1.121** on a **monthly basis**. Each Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.121** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a Method 9 visible emissions test could not be conducted due to **PF1.121** not operating or due to poor weather conditions.
    - (4) Inspect the enclosure on PF1.121 on a monthly basis to verify that the enclosure is intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly throughput rate in tons per hour for **PF1.121** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.121** is operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily throughput rate of aggregate, in tons, for the corresponding date.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of aggregate, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
      - (v) Results, verification and documentation of the **monthly** Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
     Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

### 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Shielded Requirements

Compliance with conditions AX.1 through AX.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

AY. Emission Units S2.101 and PF1.122 location North 4,539.3 km, East 552.0 km, UTM (Zone 11)

### AY. System 51 - Meikle Backfill/Cement Feed Plant Silo #1

2.101 Cement/ash silo #1 (loading)

PF 1.122 Cement/ash silo #1 (discharge)

PF 1.122.1 Cement/ash silo #1 (screw conveyor transfer)

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Air Pollution Equipment

- a. Emissions from **S2.101** will be ducted to a vent filter with 100% capture.
- Emissions from PF1.122 and 1.122.1 will be controlled by enclosures that completely enclose each transfer point.

## 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **S2.101**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.101**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.216** pound per hour, nor exceed **0.088** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.216** pound per hour, nor exceed **0.088** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust vent of **S2.101** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vent of **S2.101** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.122** and **PF1.122.1**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.122** and **PF1.122.1**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.160** pound per hour, each, nor exceed **0.065** ton per year, each, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.160** pound per hour, each, nor exceed **0.065** ton per year, each, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust vent of PF1.122 and PF1.122.1 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.122 and PF1.122.1** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

## 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Operating Parameters

- a. The maximum allowable loading rate for **S2.101** will not exceed **80.0** tons of cement/fly ash per any one-hour period, nor more than **65,000** tons of cement/fly ash per year, based on a 12-month rolling period.
- b. The maximum allowable throughput rate for **PF1.122 and PF1.122.1** will not exceed **80.0** tons of cement/fly ash per any one-hour period, each, nor more than **65,000** tons of cement/fly ash per year, each, based on a 12-month rolling period.
- c. S2.101, PF1.122 and PF1.122.1 may operate 8,760 hours per year, each.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

## AY. Emission Units S2.101 and PF1.122 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the amount of cement/fly ash loaded into **S2.101** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly cement/fly ash throughput and the total cement/fly ash throughput for the previous 12 months.
- (2) Monitor and record the amount of cement/fly ash discharged from PF1.122 and PF1.122.1 on a monthly basis. The amount of cement/fly ash will be based on purchasing receipts and measurements of the level of cement/fly ash in the silo at the beginning and end of the month. At the end of each calendar month, record the total cement/fly ash throughput for the previous 12 months.
- (3) Monitor and record the hours of operation of PF1.122 and PF1.122.1 on a monthly basis.
- (4) Install, calibrate, operate and maintain a device for the measurement of the level of cement/fly ash in the silo.
- (5) Conduct and record an inspection of the vent filter on **S2.101** on a quarterly basis noting the condition of the filter material and housing. Record any corrective actions taken.
- (6) Conduct and record an inspection of the enclosures on PF1.122 and PF1.122.1 on a monthly basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
- (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.101** and from **PF1.122** and **PF1.122.1** each on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.101, PF1.122** and **PF1.122.1** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.101, PF1.122** and **PF1.122.1** not operating or due to poor weather conditions.
- (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (9) The hourly throughput rate in tons per hour for **PF1.122 and PF1.122.1** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- (10) The hourly loading rate in tons per hour for **S2.101** will be determined from the total daily throughput and the total daily hours of operation recorded above.
- (11) The required monitoring established in (1) through (10) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.101**, **PF1.122** and **PF1.122.1** each, are operating:

  (i) The calendar date of any required monitoring.
  - (ii) The total daily and monthly throughput rate of cement/fly ash, in tons, for the corresponding date.
  - (iii) The total daily and monthly hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of cement/fly ash, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in (1), (2) and (3) above.
  - (v) Results and condition of the quarterly inspection of the vent filter on **S2.101**, and any corrective actions taken.
  - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

## 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Shielded Requirements

Compliance with conditions AY.1 through AY.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

AZ. Emission Units S2.102 and PF1.123 location North 4,539.3 km, East 552.0 km, UTM (Zone 11)

### AZ. System 52 - Meikle Backfill/Cement Feed Plant Silo #2

2.102 Cement/ash silo #2 (loading)

PF 1.123 Cement/ash silo #2 (discharge)

PF 1.123.1 Cement/ash silo #2 (screw conveyor transfer)

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from **\$2.102** will be ducted to a vent filter with 100% capture.
- Emissions from PF1.123 and PF1.123.1 will be controlled by enclosures that completely enclose each transfer point.

### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **S2.102**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.102**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.216** pound per hour, nor exceed **0.088** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.216** pound per hour, nor exceed **0.088** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust vent of **S2.102** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vent of **\$2.102** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.123 and PF1.123.1**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.123 and PF1.123.1**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.160** pound per hour, each, nor exceed **0.065** ton per year, each, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.160** pound per hour, each, nor exceed **0.065** ton per year, each, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.123 and PF1.123.1 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.123 and PF1.123.1** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

## 3. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*

### Operating Parameters

- a. The maximum allowable loading rate for **\$2.102** will not exceed **80.0** tons of cement/fly ash per any one-hour period, nor more than **65,000** tons of cement/fly ash per year, based on a 12-month rolling period.
- b. The maximum allowable throughput rate for **PF1.123 and PF1.123.1** will not exceed **80.0** tons of cement/fly ash per any one-hour period, each, nor more than **65,000** tons of cement/fly ash per year, each, based on a 12-month rolling period.
- c. **S2.102**, **PF1.123** and **PF1.123.1** may operate **8,760** hours per year, each.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

### AZ. Emission Units S2.102 and PF1.123 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring, Recordkeeping, Reporting and Compliance
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of cement/fly ash loaded into **S2.102** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly cement/fly ash throughput and the total cement/fly ash throughput for the previous 12 months.
    - (2) Monitor and record the amount of cement/fly ash discharged from PF1.123 and PF1.123.1 on a monthly basis. The amount of cement/fly ash will be based on purchasing receipts and measurements of the level of cement/fly ash in the silo at the beginning and end of the month. At the end of each calendar month, record the total cement/fly ash throughput for the previous 12 months.
    - (3) Monitor and record the hours of operation of PF1.123 and PF1.123.1 on a monthly basis.
    - (4) Install, calibrate, operate and maintain a device for the measurement of the level of cement/fly ash in the silo.
    - (5) Conduct and record an inspection of the vent filter on **S2.102** on a quarterly basis noting the condition of the filter material and housing. Record any corrective actions taken.
    - (6) Conduct and record an inspection of the enclosures on PF1.123 and PF1.123.1 on a monthly basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.102** and from **PF1.123** and **PF1.123.1** each on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.102**, **PF1.123** and **PF1.123.1** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.102**, **PF1.123** and **PF1.123.1** not operating or due to poor weather conditions.
    - (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (9) The hourly throughput rate in tons per hour for **PF1.123 and PF1.123.1** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
    - (10) The hourly loading rate in tons per hour for **\$2.102** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (11) The required monitoring established in (1) through (10) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.102**, **PF1.123** and **PF1.123.1** each, are operating:

      (i) The calendar date of any required monitoring.
      - (ii) The total daily and monthly throughput rate of cement/fly ash, in tons, for the corresponding date.
      - (iii) The total daily and monthly hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of cement/fly ash, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in (1), (2) and (3) above.
      - (v) Results and condition of the quarterly inspection of the vent filter on \$2.102, and any corrective actions taken.
      - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

## 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions AZ.1 through AZ.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section VI. Specific Operating Conditions (continued)

BA. Emission Unit S2.301 (Removed from permit November 2006)

BA. System 53 - Surface Concrete Batch Plant Cement/Fly Ash Silo

S 2.301 Cement/fly ash silo (pneumatic loading)

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

BB. Emission Unit S2.302 (Removed from permit November 2006)

BB. System 54 - Surface Concrete Batch Plant Cement/Fly Ash Silo

S 2.302 Cement/fly ash silo (pneumatic loading)

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

BC. Emission Unit PF1.321 (Removed from permit November 2006)

BC. System 55 - Surface Concrete Batch Plant

PF 1.321 Sand/aggregate loading to storage bin(s)

## **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

BD. Emission Unit PF1.322 (Removed from permit November 2006)

BD. System 56 - Surface Concrete Batch Plant

PF 1.322 Weigh hopper loading

Nevada Department of Conservation and Natural Resources • Division of Environmental Protection

BUREAU OF AIR POLLUTION CONTROL

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

BE. Emission Unit PF1.323 Not constructed, removed from inventory November 19, 1999.

Syste		- Removed	
PF	1.323	3 Central mixer loading	

## **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

BF. Emission Unit PF1.324 (Removed from permit November 2006)

BF. System 58 - Surface Concrete Batch Plant

PF 1.324 Truck mixer loading

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

BG. Emission Unit PF1.325 Location North 4,539.3 km, East 552.0 km, UTM (Zone 11)

### BG. System 59 - Meikle Shotcrete Load-out Station

PF 1.325 Delivery truck (discharge)

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

Emissions from PF1.325 will be controlled by an enclosure that completely encloses the transfer point.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Emission Limits** 

On and after the date of startup of **PF1.325**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.325**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.180** pound per hour, nor exceed **0.045** ton per year, based on a 12-month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.180** pound per hour, nor exceed **0.045** ton per year, based on a 12-month rolling period.
- NAC 445B.22017 (State Only Requirement) The opacity from PF1.325 will not equal or exceed 20% in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from PF1.325 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Operating Parameters

- a. The maximum allowable throughput rate for **PF1.325** will not exceed **90.0** tons of shotcrete per any one-hour period, nor more than **45,000** tons of shotcrete per year, based on a 12-month rolling period.
- b. **PF1.325** may operate **8,760** hours per year.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

### BG. Emission Unit PF1.325 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring, Recordkeeping, Reporting and Compliance
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of **PF1.325** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.325** on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.325 on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.325 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.325 not operating or due to poor weather conditions.
    - (4) Conduct and record an inspection of the enclosure on **PF1.325** on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly throughput rate in tons per hour for **PF1.325** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that PF1.325 is operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily throughput rate of shotcrete, in tons, for the corresponding date.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of shotcrete, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
      - (v) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Shielded Requirements

Compliance with conditions BG.1 through BG.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### NAC Requirements:

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

BH. Emission Unit PF1.326 Location North 4,539.3 km, East 552.0 km, UTM (Zone 11)

#### BH. System 60 - Meikle Shotcrete Loadout Station

PF 1.326 Screw conveyor (discharge)

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

Emissions from PF1.326 will be controlled by an enclosure that completely encloses the transfer point.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Emission Limits** 

On and after the date of startup of **PF1.326**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.326**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.180** pound per hour, nor exceed **0.045** ton per year, based on a 12-month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.180** pound per hour, nor exceed **0.045** ton per year, based on a 12-month rolling period.
- NAC 445B.22017 (State Only Requirement) The opacity from PF1.326 will not equal or exceed 20% in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.326** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Operating Parameters
  - a. The maximum allowable throughput rate for **PF1.326** will not exceed **90.0** tons of shotcrete per any one-hour period, nor more than **45,000** tons of shotcrete per year, based on a 12-month rolling period.
  - b. **PF1.326** may operate **8,760** hours per year.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

### BH. Emission Unit PF1.326 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. <u>Monitoring, Recordkeeping, Reporting and Compliance</u>
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of PF1.326 on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.326** on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.326 on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.326 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.326 not operating or due to poor weather conditions.
    - (4) Conduct and record an inspection of the enclosure on **PF1.326** on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly throughput rate in tons per hour for **PF1.326** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that PF1.326 is operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily throughput rate of shotcrete, in tons, for the corresponding date.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of shotcrete, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
      - (v) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Shielded Requirements

Compliance with conditions BH.1 through BH.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### NAC Requirements:

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

BI. Emission Units S2.004 Location North 4,536.2 km, East 554.6 km, UTM (Zone 11)

### Bl. System 61 - Carbon Reactivation Kiln #2

- S 2.004.1 Carbon kiln #2 drum
- S 2.004.2 Carbon kiln #2 burner

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. S2.004.1 will be ducted to a control system consisting of a venturi wet scrubber (WS-001). Following installation and shakedown, WS-001 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.004.1, including startup and shutdown.
- b. **\$2.004.2** will be operated in a manner that minimizes emissions.

### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the issuance date of this permit, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of WS-001 the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **4.21** pounds per hour.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **4.21** pounds per hour.
  - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed **0.12** pound per hour.
  - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere will not exceed **1.18** pounds per hour.
  - (5) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 1.13 pounds per hour.
  - (6) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of WS-001 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (7) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stack of WS-001 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, opacity in accordance with NAC 445.721.
- b. On and after the issuance date of this permit, Permittee will not discharge or cause the discharge into the atmosphere from the two exhaust stacks of **S2.004.2** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.60** pound per hour.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.60** pound per hour.
  - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 0.30 pound per hour.
  - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed **4.16** pounds per hour.
  - (5) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere will not exceed **2.44** pounds per hour.
  - (6) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 1.00 pound per hour.
  - (7) NAC 445B.22017 (State Only Requirement) The opacity from the two exhaust stacks of S2.004.2 each, will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (8) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the two exhaust stacks of **\$2.004.2** each, will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, opacity in accordance with NAC 445.721

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### **Operating Parameters**

- a. The maximum allowable throughput rate for \$2.004.1 will not exceed 3.0 tons of carbon per any one-hour period.
- b. **\$2.004.2** may combust either HD-5 grade propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited
- c. The maximum fuel heat input rate for \$2.004.2 will not exceed 17.5 million Btu's per any one-hour period.
- d. The maximum fuel consumption rate for \$2.004.2 will not exceed 191.0 gallons of HD-5 grade propane per any one-hour period.
- e. The maximum fuel consumption rate for **\$2.004.2** will not exceed **17,500.0** cubic feet of pipeline quality natural gas per any one-hour period
- f. **S2.004.1 and S2.004.2** may operate **8,760** hours per year, each.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- **Emission Units S2.004 (continued)** 
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - Monitoring, Recordkeeping, Reporting and Compliance
      - On and after the date of initial startup, Permittee will:
      - Monitor the throughput rate of carbon for \$2.004.1 on a daily basis. Monitor the fuel combustion rate and type of fuel combusted for \$2.004.2 on a daily basis.

      - (3) Monitor the hours of operation for \$2.004.1 and \$2.004.2 each, on a daily basis.
      - Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of WS-001 and the two exhaust stacks of S2.004.2 each on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while S2.004.1 and S2.004.2 are operating and have the potential to create visible emissions. If WS-001 is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to \$2.004.1 and \$2.004.2 not operating or due to poor weather conditions.
      - (5) Install, calibrate, operate and maintain devices for the measurement of the venturi wet scrubber (WS-001) pressure drop and
      - Conduct and record a reading of the venturi wet scrubber (WS-001) pressure drop and water flow rate once during each day S2.004.1 is operating. Record any monitored occurrences when the pressure drop or flow rate falls outside the specified operating range and record any corrective actions taken.
      - The Permittee will notify the director within 15 days of switching the fuel combusted in \$2.004.2 as allowed under BI.3.b. of this Section.
      - Maintain records of the specified operating range for the venturi wet scrubber (WS-001) pressure drop and water flow (8)rate on site and available for inspection upon request. The specified operating ranges will be specified by the Permittee based on the manufacturer's design recommendations or compliance tests, which are correlated to the scrubber's operating range.
      - Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date (9)of such measurements, reports or records pursuant to Section V.A of the permit. The most recent 2 years records will be retained on site and made available for inspection upon request.
      - The required monitoring established in (1) through (9) above, will be maintained in a contemporaneous log containing, at a minimum, the following recordkeeping:
        - The calendar date of any required monitoring.
        - The total daily throughput rate of carbon, in tons, for the corresponding date. (ii)
        - The total daily fuel consumption rate in million BTU's, and type of fuel, for the corresponding date. (iii)
        - The total daily hours of operation for the corresponding date. (iv)
        - The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be (v) determined from the total daily throughput rate and the total daily hours of operation recorded in (1) and (3) above.
        - The corresponding average hourly fuel consumption rate in million BTU's per hour. The average hourly fuel consumption rate will be determined from the total daily fuel consumption rate and the total daily hours of operation recorded in (2) and (3) above.
        - Results of the daily readings of the pressure drop and water flow rate across venturi wet dust scrubber WS-001 each (vii) day that S2.004.1 and S2.004.2 each, are in operation.
        - Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission (viii) tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- BI. Emission Units S2.004 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - Periodic Compliance Testing
      - 1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of S2.004.1. The periodic compliance tests for PM and PM<sub>10</sub> will be conducted on an annual basis with no more than one year and 90 days between compliance tests. The periodic compliance tests for CO and VOC will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests.
        - (i) Conduct and record the following performance tests on the exhaust stack of **\$2.004.1** consisting of three valid runs at the maximum throughput rate subject to BI.3.a. of this section:
          - (a) A Method 5 (with back-half catch) source test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the director) for PM.
          - (b) A Method 201A and 202 test in accordance with 40 CFR Part 60, Appendix M (or an alternative EPA reference method approved by the director) for PM<sub>10</sub>.
        - (ii) The Method 201A and Method 202 tests required in BI.4.b.(1)(i)(b) of this section may be replaced by a Method 5 test which includes the back-half catch. All particulate captured in the Method 5 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in BI.2.a. of this section.
        - (iii) Conduct and record a Method 10 test in accordance with 40 CFR Part 60, Appendix A (or equivalent methods as approved by the Director) for CO.
        - (iv) Conduct and record a Method 25/25A test in accordance with 40 CFR Part 60, Appendix A (or equivalent methods as approved by the Director) for VOC.
        - (v) Performance tests required under BI.4.b.(1) of this section that are conducted below the maximum allowable throughput, as established in BI.3. of this section, shall be subject to the director's review to determine if the throughput during the performance tests were sufficient to provide adequate compliance demonstration. Should the director determine that the performance tests do not provide adequate compliance demonstration then, the director may order additional performance testing for the purpose of a compliance demonstration.
        - (vi) Conduct and record a Method 9 visible emissions reading on the exhaust stack of **\$2.004.1** concurrent with one of the three required Method 5 or Method 201A and Method 202 performance tests as referenced in BI.4.b.(1)(i) of this section. Visible emissions reading shall use the procedures contained in 40 CFR Part 60, Appendix A, Method 9. The visible emissions reading must be conducted by a certified visible emissions reader for a period of 6-minutes.
        - (vii) The Permittee shall comply with the requirements of Section I.U.3 through I.U.8 and Section I.V.3 through I.V.8 for all performance testing.
      - (2) Permittee will conduct and record the following periodic compliance tests on the 2 exhaust stacks of **S2.004.2**. The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests. The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum throughput rate and heat input rate subject to BI.3.a.and c. of this section:
        - (i) Conduct and record a Method 7E test in accordance with 40 CFR Part 60, Appendix A (or equivalent methods as approved by the Director) for NOx.
        - (ii) Conduct and record a Method 10 test in accordance with 40 CFR Part 60, Appendix A (or equivalent methods as approved by the Director) for CO.
        - (iii) Conduct and record a Method 25/25A test in accordance with 40 CFR Part 60, Appendix A (or equivalent methods as approved by the Director) for VOC.
        - (iv) Performance tests required under BI.4.b.(2) of this section that are conducted below the maximum allowable throughput, as established in BI.3. of this section, shall be subject to the director's review to determine if the throughput during the performance tests were sufficient to provide adequate compliance demonstration. Should the director determine that the performance tests do not provide adequate compliance demonstration, then the director may order additional performance testing for the purpose of a compliance demonstration.
        - (v) Conduct and record a Method 9 visible emissions reading on the 2 exhaust stacks of **\$2.004.2** concurrent with performance tests as referenced in BI.4.b.(2) of this section. Visible emissions reading shall use the procedures contained in 40 CFR Part 60, Appendix A, Method 9. The visible emissions reading must be conducted by a certified visible emissions reader for a period of 6-minutes.
        - (vi) The Method 7E, 10 and 25/25A emissions tests required under BI.4.b.(2) of this Section will be conducted on the 2 exhaust stacks of S2.004.2 within 60 days of switching the fuel combusted in S2.004.2 as allowed under BI.3.b. of this Section
        - (vii) The Permittee shall comply with the requirements of Section I.U.3 through I.U.8 and Section I.V.3 through I.V.8 for all performance testing.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

### BI. Emission Units S2.004 (continued)

5. NAC 445B.3405 (NAC 445B.316) Part 70 Program Shielded Requirements

Compliance with conditions BI.1 through BI.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 **CLASS I AIR QUALITY OPERATING PERMIT** SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## **Section VI. Specific Operating Conditions (continued)**

BJ. Emission Units PF1.101 through PF1.105 Location North 4,539.3 km, East 551.8 km, UTM (Zone 11)

#### BJ. System 62 - Meikle Production Shaft Skips - discharge/transfer to upper chute 1.101

PF 1.102 Upper chute discharge - transfer to one of two transfer cars

Transfer cars discharge - transfer to one of two lower chutes PF 1.103

PF 1.104 Bins loading - lower chutes discharge to one of two bins

1.105 PF Bins discharge - transfer to haul truck

#### NAC 445B.3405 (NAC 445B.316) Part 70 Program 1

#### Air Pollution Equipment

- Emissions from PF1.101 through PF1.104 will be controlled by a building enclosure that encloses each transfer point on all sides.
- Emissions from the drop point of PF1.105 will be controlled by a pneumatic water spray system. The pneumatic water spray system will be in operation at all times PF1.105 is operating, including startup and shutdown.

#### 2 NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- On and after the date of startup of PF1.101, PF1.102, PF1.103 and PF1.104. Permittee will not discharge or cause the discharge into the atmosphere from PF1.101, PF1.102, PF1.103 and PF1.104 the following pollutants in excess of the following specified limits:
  - NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.280** pound per hour each, nor more than **0.381** ton per year each, based on a 12-month rolling period.
  - NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in (2)diameter) to the atmosphere will not exceed 0.098 pound per hour each, nor more than 0.133 ton per year each, based on a 12-month rolling period.
  - NAC 445B.22017 (State Only Requirement) The opacity from PF1.101, PF1.102, PF1.103 and PF1.104 each will not equal (3)or exceed 20 percent in accordance with NAC 445B.22017.
  - NAC 445.721(Federally Enforceable SIP Requirement) The opacity from PF1.101, PF1.102, PF1.103 and PF1.104 each will (4) not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- On and after the date of startup of PF1.105, Permittee will not discharge or cause the discharge into the atmosphere from PF1.105 the following pollutants in excess of the following specified limits:
  - NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed 0.149 pound per hour, nor more than 0.202 ton per year, based on a 12-month rolling period.
  - (2)NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.052 pound per hour, nor more than 0.071 ton per year, based on a 12-month
  - NAC 445B.22017 (State Only Requirement) The opacity from PF1.105 will not equal or exceed 20 percent in accordance (3)with NAC 445B.22017.
  - NAC 445.721(Federally Enforceable SIP Requirement) The opacity from PF1.105 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- New Source Performance Standards (NSPS) Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR

On and after the sixtieth day after achieving the maximum production rate at which PF1.104 - PF1.105, each will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- Process fugitive emissions from PF1.104 PF1.105, each will not exceed 10 percent opacity. (40 CFR Part 60.382(b))
- (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
- At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and (3)operate PF1.104 - PF1.105, each including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

#### NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters**

- The maximum allowable throughput rate for PF1.101 through PF1.105 will not exceed 1,105.0 tons of ore/mine rock per any onehour period, each, nor more than 3,000,000 tons of ore/mine rock per year, each, based on a 12-month rolling period.
- PF1.101 through PF1.105 may operate 8,760 hours per year, each.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

## BJ. Emission Units PF1.101 through PF1.105 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring, Recordkeeping, Reporting and Compliance
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of **PF1.101 through PF1.105** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.101** through **PF1.105** on a daily basis.
    - Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.101 through PF1.103 on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test of the visible emissions (excluding water vapor) from PF1.104 and PF1.105 on a monthly basis. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.101 through PF1.105 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visible emissions assessment or Method 9 visible emissions test could not be conducted due to PF1.101 through PF1.105 not operating or due to poor weather conditions.
    - (4) Inspect the pneumatic water spray system on **PF1.105** once during each day of operation to verify that it is operating as designed. Record the inspection results and any corrective actions taken.
    - (5) Inspect the enclosures on **PF1.101 through PF1.104** on a monthly basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (7) The hourly throughput rate in tons per hour for **PF1.101 through PF1.105** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (8) The required monitoring established in (1) through (7) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.101 through PF1.105** each, are operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily throughput rate of ore/mine rock, in tons, for the corresponding date.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of ore/mine rock, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
      - (v) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
     Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

## 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

### Shielded Requirements

Compliance with conditions BJ.1 through BJ.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:



## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section VI. Specific Operating Conditions (continued)

BK. Emission Units S2.028 through S2.031 and PF1.018 through PF1.021 Location North 4,536.0 km, East 554.8 km, UTM (Zone 11)

BK.	System 6	3 - Autoclave Silos #1 through #4
S	2.028	Silo #1, 250 ton, loading
PF	1.018	Silo #1, 250 ton, discharge
S	2.029	Silo #2, 500 ton, loading
PF	1.019	Silo #2, 500 ton, discharge
S	2.030	Silo #3, 500 ton, loading
PF	1.020	Silo #3, 500 ton, discharge
S	2.031	Silo #4, 1,000 ton, loading
PF	1.021	Silo #4, 1,000 ton, discharge

Note: See Section VII.A. - Emission Caps



## **BUREAU OF AIR POLLUTION CONTROL**

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## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

BL. Emission Units PF1.001, PF1.003, PF1.004 and PF1.006 Emission Units PF1.007 and PF1.008.1 Emission Units PF1.005, PF1.005.1 and PF1.008 Location North 4,536.3 km, East 554.9 km, UTM (Zone 11) Location North 4,536.2 km, East 554.8 km, UTM (Zone 11) Location North 4,536.2 km, East 554.6 km, UTM (Zone 11)

### BL. System 64 - Mill #1 Primary and Tertiary Crushing Process

PF	1.001	Ore nopper
PF	1.003	Jaw crusher
PF	1.004	Apron feeder
PF	1.005	Cone crusher
PF	1.005.1	Conveyor (cone outlet)
PF	1.006	Conveyor #001 (jaw outlet)
PF	1.007	Conveyor/radial stacker #002
PF	1.008	Conveyor #003 (mill inlet)
PF	1.008.1	Apron feeders (load and discharg

## 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

## Air Pollution Equipment

- a. Emissions from **PF1.001** will be controlled by a pneumatic water spray system. Emissions from **PF1.005** and **PF1.007** will be controlled by a pneumatic water spray system. The pneumatic water spray system for each emission unit (**PF1.001**, **PF1.005** and **PF1.007**) will be operated at all times the emission units operate.
- b. Emissions from **PF1.005.1** and **PF1.006** each, will be controlled by enclosures that enclose each transfer point and minimize that amount of dust caused by ambient wind.
- c. Emissions from PF1.003, PF1.004 and PF1.008 each, will be controlled by building enclosures.
- d. Emissions from **PF1.008.1** will be controlled by operation underground.

## **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- BL. Emission Units PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1 (continued)
  - 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits
    - a. On and after the date of startup of **PF1.001**, **PF1.003** and **PF1.004**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.001**, **PF1.003** and **PF1.004** the following pollutants in excess of the following specified limits:
      - 1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.59** pound per hour, total, nor exceed **1.55** tons per year, total, based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **1.24** pounds per hour, total, nor exceed **3.26** tons per year, total, based on a 12-month rolling period.
      - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.001, PF1.003 and PF1.004 will not equal or exceed 20% in accordance with NAC 445B.22017.
      - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF 1.001**, **PF1.003** and **PF1.004** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
    - b. On and after the date of startup of **PF1.005**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.005** the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.13** pound per hour, nor exceed **0.30** ton per year, based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.27** pound per hour, nor exceed **0.62** ton per year, based on a 12-month rolling period.
      - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.005** will not equal or exceed **20%** in accordance with NAC 445B.22017.
      - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.005** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
    - c. On and after the date of startup of PF1.005.1, Permittee will not discharge or cause the discharge into the atmosphere from PF1.005.1 the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.019** pound per hour, nor exceed **0.045** ton per year, based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.055** pound per hour, nor exceed **0.13** ton per year, based on a 12-month rolling period.
      - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.005.1** will not equal or exceed **20%** in accordance with NAC 445B.22017.
      - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from PF1.005.1 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
    - d. On and after the date of startup of PF1.006, Permittee will not discharge or cause the discharge into the atmosphere from PF1.006 the following pollutants in excess of the following specified limits:
      - 1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.089** pound per hour, nor exceed **0.23** ton per year, based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.25** pound per hour, nor exceed **0.67** ton per year, based on a 12-month rolling period.
      - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.006 will not equal or exceed 20% in accordance with NAC 445B.22017.
      - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from PF1.006 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
    - e. On and after the date of startup of **PF1.007**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.007** the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.047** pound per hour, nor exceed **0.12** ton per year, based on a 12-month rolling period
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.13** pound per hour, nor exceed **0.35** ton per year, based on a 12-month rolling period.
      - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.007** will not equal or exceed **20%** in accordance with NAC 445B.22017.
      - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.007** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- BL. Emission Units PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1 (continued)
  - 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Emission Limits
    - f. On and after the date of startup of **PF1.008**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.008** the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.046 pound per hour, nor exceed 0.20 ton per year, based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.13** pound per hour, nor exceed **0.57** ton per year, based on a 12-month rolling period.
      - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.008** will not equal or exceed **20%** in accordance with NAC 445B.22017.
      - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.008** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
    - g. On and after the date of startup of PF1.008.1, Permittee will not discharge or cause the discharge into the atmosphere from PF1.008.1 the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.091 pound per hour, nor exceed 0.40 ton per year, based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.26** pound per hour, nor exceed **1.14** tons per year, based on a 12-month rolling period.
      - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.008.1** will not equal or exceed **20%** in accordance with NAC 445B.22017.
      - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from PF1.008.1 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
    - New Source Performance Standards (NSPS) Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.001**, **PF1.003**, **PF1.004**, **PF1.005**, **PF1.005**, **PF1.005**, **PF1.006**, **PF1.008** and **PF1.008.1**, each will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Process fugitive emissions from PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.008 and PF1.008.1, each will not exceed 10 percent opacity. (40 CFR Part 60.382(b))
- (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
- At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.008 and PF1.008.1 each, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
- NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Operating Parameters</u>
  - a. The maximum allowable throughput rate for **PF1.001**, **PF1.003**, **PF1.004**, **PF1.006** and **PF1.007** will not exceed **1,000.0** tons of ore per any one-hour period, each, nor more than **5,256,000** tons of ore per year, each, based on a 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.008 and PF1.008.1** will not exceed **515.0** tons of ore per any one-hour period, each, nor more than **4,511,400** tons of ore per year, each, based on a 12-month rolling period.
  - c. The maximum allowable throughput rate for **PF1.005** and **PF1.005.1** will not exceed **215.0** tons of ore per any one-hour period, each, nor more than **1,007,400** tons of ore per year, each, based on a 12-month rolling period.
  - d. PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1 may operate 8,760 hours per year, each.



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## Section VI. Specific Operating Conditions (continued)

- BL. Emission Units PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - a. Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of initial startup, Permittee will:

- Monitor and record the throughput of **PF1.001**, **PF1.003**, **PF1.004**, **PF1.005**, **PF1.005**.1, **PF1.006**, **PF1.007**, **PF1.008** and **PF1.008**.1 on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
- (2) Monitor and record the hours of operation of PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1 on a daily basis.
- (3) Conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test of the visible emissions (excluding water vapor) from PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.008 and PF1.008.1 on a monthly basis. Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.007 on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment or Method 9 test could not be conducted due to PF1.001, PF1.003, PF1.004, PF1.005, PF1.005, PF1.005, PF1.006, PF1.007, PF1.008 and PF1.008.1 not operating or due to poor weather conditions.
- (4) Inspect the pneumatic water spray system on **PF1.001**, **PF1.005**, and **PF1.007** once during each day of operation to verify that it is operating as designed. Record the inspection results and any corrective actions taken.
- (5) Inspect the enclosures on PF1.003, PF1.004, PF1.005.1, PF1.006 and PF1.008 on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
- (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (7) The hourly throughput rate in tons per hour for PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1 will be determined from the total daily throughput and the total daily hours of operation recorded above.
- (8) The required monitoring established in (1) through (7) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1 each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
  - (iii) The total daily hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
  - (v) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
   Permittee, upon the issuance date of this permit, shall:
  - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Shielded Requirements

Compliance with conditions BL.1 through BL.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### NAC Requirements:

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

BM. Emission Units PF1.010 and PF1.015.1 Emission Units PF1.011, PF1.012 and PF1.013 Emission Units PF1.014, PF1.014.1 and PF1.015 Location North 4,536.2 km, East 554.8 km, UTM (Zone 11) Location North 4,536.3 km, East 554.9 km, UTM (Zone 11) Location North 4,536.1 km, East 554.7 km, UTM (Zone 11)

## BM. System 65 - Mill #2 Primary and Tertiary Crushing Process

Conveyor #304 (fixed stacker) 1.011 Dump pocket 1.012 PF Gyratory crusher PF 1.013 Conveyor #101 (gyratory outlet) 1.014 PF Cone crusher PF 1.014.1 Conveyor (cone outlet) 1.015 Conveyor #301 (mill inlet) 1.015.1 PF Apron feeders (loading and discharge)

## 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from **PF1.011** will be controlled by a pneumatic water spray system.
- b. Emissions from **PF1.010** and **PF1.014** each, will be controlled by a pneumatic water spray system. The pneumatic water spray system for each emission unit (**PF1.010**, **PF1.011** and **PF1.014**) will be operated at all times the emission unit operates.
- c. Emissions from **PF1.013** and **PF1.014.1** each, will be controlled by enclosures that enclose each transfer point and minimize the amount of dust caused by ambient wind.
- d. Emissions from **PF1.012** and **PF1.015** each, will be controlled by building enclosures.
- e. Emissions from **PF1.015.1** will be controlled by operation underground.

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Emission Limits

- a. On and after the date of startup of **PF1.010**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.010** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.082** pound per hour, nor exceed **0.36** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.24** pound per hour, nor exceed **1.03** tons per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.010 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.010** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.011 and PF1.012**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.011 and PF1.012** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 1.03 pounds per hour, total, nor exceed 4.52 tons per year, total, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **2.17** pounds per hour, total, nor exceed **9.50** tons per year, total, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.011 and PF1.012 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.011** and **PF1.012** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

## **BUREAU OF AIR POLLUTION CONTROL**

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## Section VI. Specific Operating Conditions (continued)

- BM. Emission Units PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1 (continued)
  - 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Emission Limits
    - c. On and after the date of startup of **PF1.013**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.013** the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.16 pound per hour, nor exceed 0.68 ton per year, based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.44** pound per hour, nor exceed **1.94** tons per year, based on a 12-month rolling period.
      - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.013** will not equal or exceed **20%** in accordance with NAC 445B.22017.
      - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.013** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
    - d. On and after the date of startup of **PF1.014**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.014** the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.18** pound per hour, nor exceed **0.79** ton per year, based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.38** pound per hour, nor exceed **1.65** tons per year, based on a 12-month rolling period.
      - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.014 will not equal or exceed 20% in accordance with NAC 445B.22017.
      - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.014** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
    - e. On and after the date of startup of **PF1.014.1**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.014.1** the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.027** pound per hour, nor exceed **0.12** ton per year, based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.077** pound per hour, nor exceed **0.34** ton per year, based on a 12-month rolling period.
      - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.014.1** will not equal or exceed **20%** in accordance with NAC 445B.22017.
      - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from PF1.014.1 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
    - f. On and after the date of startup of **PF1.015**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.015** the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.082** pound per hour, nor exceed **0.36** ton per year, based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.23** pound per hour, nor exceed **1.03** tons per year, based on a 12-month rolling period.
      - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.015** will not equal or exceed **20%** in accordance with NAC 445B.22017.
      - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.015** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
    - g. On and after the date of startup of **PF1.015.1**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.015.1** the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.15** pound per hour, nor exceed **0.64** ton per year, based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.42** pound per hour, nor exceed **1.82** ton per year, based on a 12-month rolling period.
      - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.015.1** will not equal or exceed **20%** in accordance with NAC 445B.22017.
      - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.015.1** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

## **BUREAU OF AIR POLLUTION CONTROL**

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## Section VI. Specific Operating Conditions (continued)

- BM. Emission Units PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1 (continued)
  - NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Emission Limits
    - h. New Source Performance Standards (NSPS) Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)
      - On and after the sixtieth day after achieving the maximum production rate at which PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1, each will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
      - 1) Process fugitive emissions from PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1, each will not exceed 10 percent opacity. (40 CFR Part 60.382(b))
      - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
      - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.011**, **PF1.012**, **PF1.013**, **PF1.014**, **PF1.014.1**, **PF1.015** and **PF1.015.1** each, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
  - 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

### Operating Parameters

- a. The maximum allowable throughput rate for **PF1.010 through PF1.013** will not exceed **1,750.0** tons of ore per any one-hour period, each, nor more than **15,330,000** tons of ore per year, each, based on a 12-month rolling period.
- b. The maximum allowable throughput rate for **PF1.014** and **PF1.014.1** will not exceed **304.0** tons of ore per any one-hour period, each, nor more than **2,663,040** tons of ore per year, each, based on a 12-month rolling period.
- c. The maximum allowable throughput rate for **PF1.015** will not exceed **925.0** tons of ore per any one-hour period, nor more than **8,103,000** tons of ore per year, based on a 12-month rolling period.
- d. The maximum allowable throughput rate for **PF1.015.1** will not exceed **821.0** tons of ore per any one-hour period, nor more than **7,191,960** tons of ore per year, based on a 12-month rolling period.
- e. PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1 may operate 8,760 hours per year, each.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

BM. Emission Units PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. Monitoring, Recordkeeping, Reporting and Compliance
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of **PF1.010**, **PF1.011**, **PF1.012**, **PF1.013**, **PF1.014**, **PF1.014.1**, **PF1.015** and **PF1.015.1** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous
    - (2) Monitor and record the hours of operation of PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1 on a daily basis.
    - (3) Conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test of the visible emissions (excluding water vapor) from PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1 on a monthly basis. Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.010 on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.010, PF1.011, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment or Method 9 test could not be conducted due to PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1 not operating or due to poor weather conditions.
    - (4) Inspect the pneumatic water spray system on **PF1.010**, **PF1.011** and **PF1.014** once during each day of operation to verify that it is operating as designed. Record the inspection results and any corrective actions taken.
    - (5) Inspect the enclosures on **PF1.012**, **PF1.013**, **PF1.014.1** and **PF1.015** on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (7) The hourly throughput rate in tons per hour for PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1 will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (8) The required monitoring established in (1) through (7) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.010**, **PF1.011**, **PF1.012**, **PF1.013**, **PF1.014**, **PF1.015** and **PF1.015.1** each, are operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
      - (v) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
     Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Shielded Requirements**

Compliance with conditions BM.1 through BM.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

BN. Emission Units S2.015, and S2.018 through S2.020 L Emission Units S2.016 and S2.017 L

Location North 4,536.0 km, East 554.7 km, UTM (Zone 11) Location North 4,536.1 km, East 554.7 km, UTM (Zone 11)

BN.	System 66	- Autoclave Circuit
S	2.015	Autoclave #1
S	2.016	Autoclave #2
S	2.017	Autoclave #3
S	2.018	Autoclave #4
S	2.019	Autoclave #5
S	2.020	Autoclave #6

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

100% of all process emissions from S2.215 through S2.020 will be ducted to a control system consisting of:

- A venturi wet dust scrubber on the exhaust stream of \$2.015 (Autoclave 1).
- b. A venturi wet dust scrubber on the exhaust stream of **S2.016** and **S2.017** (Autoclaves 2 and 3).
- c. A venturi wet dust scrubber on the exhaust stream of **\$2.018** (Autoclave 4).
- A venturi wet dust scrubber on the exhaust stream of \$2.019 and \$2.020 (Autoclaves 5 and 6).

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Emission Limits</u>

- a. On and after the date of startup of **S2.015**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.015** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 2.28 pounds per hour, nor exceed 9.99 tons per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **2.28** pounds per hour, nor exceed **9.99** tons per year, based on a 12-month rolling period.
  - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **0.29** pound per hour, nor exceed **1.27** tons per year, based on a 12-month rolling period.
  - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of H<sub>2</sub>S (hydrogen sulfide) to the atmosphere will not exceed **2.12** pounds per hour, nor exceed **9.29** tons per year, based on a 12-month rolling period.
  - (5) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of **\$2.015** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (6) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stack of **S2.015** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **S2.016** and **S2.017**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.016** and **S2.017** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 7.00 pounds per hour, total, nor exceed 30.66 tons per year, total, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **7.00** pounds per hour, total, nor exceed **30.66** tons per year, total, based on a 12-month rolling period.
  - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **0.90** pound per hour, total, nor exceed **3.94** tons per year, total, based on a 12-month rolling period.
  - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of H<sub>2</sub>S (hydrogen sulfide) to the atmosphere will not exceed **6.54** pounds per hour, total, nor exceed **28.65** tons per year, total, based on a 12-month rolling period.
  - (5) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of S2.016 and S2.017 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (6) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stack of **S2.016** and **S2.017** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

### BN. Emission Units S2.015 through S2.020 (continued)

- 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Emission Limits
  - c. On and after the date of startup of **S2.018**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.018** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 3.50 pounds per hour, nor exceed 15.33 tons per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **3.50** pounds per hour, nor exceed **15.33** tons per year, based on a 12-month rolling period.
    - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **0.45** pound per hour, nor exceed **1.97** tons per year, based on a 12-month rolling period.
    - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of H<sub>2</sub>S (hydrogen sulfide) to the atmosphere will not exceed **3.27** pounds per hour, nor exceed **14.32** tons per year, based on a 12-month rolling period.
    - (5) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of S2.018 will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (6) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stack of **\$2.018** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - d. On and after the date of startup of \$2.019 and \$2.020, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of \$2.019 and \$2.020 the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 7.00 pounds per hour, total, nor exceed 30.66 tons per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **7.00** pounds per hour, total, nor exceed **30.66** tons per year, total, based on a 12-month rolling period.
    - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **0.90** pound per hour, total, nor exceed **3.94** tons per year, total, based on a 12-month rolling period.
    - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of H<sub>2</sub>S (hydrogen sulfide) to the atmosphere will not exceed **6.54** pounds per hour, total, nor exceed **28.65** tons per year, total, based on a 12-month rolling period.
    - (5) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stacks of **S2.019 and S2.020** each will not equal or exceed **20%** in accordance with NAC 445B.22017.
    - (6) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stacks of S2.019 and S2.020 each will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Operating Parameters

- a. The maximum allowable throughput rate for \$2.015 will not exceed 130.0 tons of ore per any one-hour period.
- b. The maximum allowable throughput rate for S2.016 and S2.017 will not exceed 200.0 tons of ore per any one-hour period, each.
- c. The maximum allowable throughput rate for \$2.018 will not exceed 200.0 tons of ore per any one-hour period.
- d. The maximum allowable throughput rate for S2.019 and S2.020 will not exceed 200.0 tons of ore per any one-hour period, each.
- e. S2.015 through S2.020 may operate 8,760 hours per year, each.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

BN. Emission Units S2.015 through S2.020 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Periodic Compliance Testing
    - 1) Permittee will conduct and record the following periodic compliance tests on the exhaust stacks of **\$2.015** through **\$2.020** each. The periodic compliance tests will be conducted on an annual basis with no more than one year and **90** days between compliance tests. The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition BN.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in BN.3.a. to e. of this Section).
      - (i) Method 201A and 202 compliance tests in accordance with 40 CFR Part 51, Appendix M (or an alternative reference method approved by the Director, pursuant to NAC 445B.252 and Sections I.U. and I.V. of this operating permit) for PM<sub>10</sub>
      - (ii) Method 5 or 17 (with back-half catch), 6 and 11 compliance tests for PM, SO<sub>2</sub> and H<sub>2</sub>S in accordance with 40 CFR Part 60, Appendix A (or an alternative method approved by the Director, pursuant to NAC 445B.252 and Sections I.U and I.V of this operating permit).
    - (2) The Method 201A and Method 202 tests required in BN.4.a.(1) of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in BN.2. of this section
    - (3) Compliance tests required under BN.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in BN.3 of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
    - (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stacks of the venturi wet dust scrubbers for **S2.015 through S2.020** each in accordance with 40 CFR Part 60, Appendix A (or an alternative reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.



## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

### BN. Emission Units S2.015 through S2.020 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - b. Monitoring and Recordkeeping

On and after the date of initial start up, Permittee will:

- (1) Monitor and record the ore throughput of S2.015 through S2.020 each on a daily basis. At the end of each calendar month, record the total monthly ore throughput and the total ore throughput for the previous 12 months.
- (2) Monitor and record the hours of operation of \$2.015 through \$2.020 each on a daily basis.
- (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop and water flow rate through each venturi wet dust scrubber for **S2.015 through S2.020**.
- (4) Monitor and record the pressure drop and water flow rate through each venturi wet dust scrubber, each day **S2.015 through S2.020** is in operation. Record any monitored occurrences when the pressure drop or water flow rate falls outside the specified operating range and record any corrective actions taken.
- (5) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stacks of the venturi wet dust scrubbers for S2.015 through S2.020 each, on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while S2.015 through S2.020 are operating and have the potential to create visible emissions. If the venturi wet dust scrubbers for S2.015 through S2.020 are shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to S2.015 through S2.020 not operating or due to poor weather conditions.
- (6) Maintain records of the specified operating range for the wet scrubbers on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
- (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (8) The hourly throughput rate in tons per hour for **S2.015 through S2.020** each will be determined from the total daily throughput and the total daily hours of operation recorded above.
- (9) The required monitoring established in (1) through (8) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.015 through S2.020** each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
  - (iii) The total daily hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
  - (v) Results of the daily readings of the pressure drop and water flow rate across each venturi wet dust scrubber on **S2.015** through **S2.020**, each day that **S2.015** through **S2.020** each, are in operation.
  - (vi) Results and verification of the **monthly** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

## Shielded Requirements

Compliance with conditions BN.1 through BN.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit:

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC 445.746 (Other Sulfur Emitting Processes) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.2205 (Other Process which Emit Sulfur) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section VI. Specific Operating Conditions (continued)

BO. Emission Units S2.009 through S2.011 location North 4,536.2 km, East 554.5 km, UTM (Zone 11)

 BO. System 67 - Mercury Retorts

 S
 2.009
 Mercury retort #1

 S
 2.010
 Mercury retort #2

 S
 2.011
 Mercury retort #3

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

Emissions from \$2.009 through \$2.011 will be controlled by a control system consisting of a mercury condenser and carbon adsorption unit for each retort.

2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

**Emission Limits** 

On and after the date of startup of **S2.009 through S2.011**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **S2.009 through S2.011**, the following pollutants in excess of the following specified limits:

- NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stacks of \$2.009 through \$2.011 each will not equal or exceed 20% in accordance with NAC 445B.22017.
- b. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stacks of **S2.009 through S2.011** each will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Operating Parameters</u>

S2.009 through S2.011 may operate 8,760 hours per year, each.

# **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

#### BO. Emission Units S2.009 through S2.011 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the hours of operation of **S2.009 through S2.011** on a daily basis.
- (2) Install, calibrate, operate and maintain devices for the measurement of the condenser water temperature and retort vacuum gauge pressure for **S2.009 through S2.011**.
- (3) Record the date of each carbon replacement in the carbon adsorbers.
- (4) Continuously monitor and record the condenser water temperature and retort vacuum gauge pressure of S2.009 through S2.011. Record any monitored occurrences when any control parameter falls outside the specified operating range and record any corrective actions taken.
- (5) Maintain records of the specified operating range for the mercury condensers and the retort vacuum gauge pressure on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
- (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.009 through \$2.011** each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The measurement of the condenser water temperature and retort vacuum gauge pressure, for the corresponding date.
  - (iii) The total daily hours of operation for the corresponding date.
  - (iv) Records of the dates of each carbon replacement in the carbon adsorbers for S2.009 through S2.011.
  - (v) Records of the continuous specified operating range for the mercury condensers and the retort vacuum gauge pressure for **S2.009 through S2.011**.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Shielded Requirements**

Compliance with conditions BO.1 through BO.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:



# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT

SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

BP. Emission Units S2.013 and S2.014 location North 4,536.2 km, East 554.5 km, UTM (Zone 11)

#### BP. System 68 - Furnaces

S 2.013 West melting furnace S 2.014 East melting furnace

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

Emissions from **\$2.013** and **\$2.014** each will be ducted to a control system consisting of a baghouse. The baghouse will be operated in accordance with the manufacturer's recommendations at all times during the operation of **\$2.013** and **\$2.014**, including startup and shutdown. The capture efficiency of the control system will be 100% such that all process emissions from **\$2.013** and **\$2.014** each will be captured and ducted to the baghouse.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

On and after the date of startup of **S2.013** and **S2.014**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of the baghouse for **S2.013** and **S2.014**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **1.40** pounds per hour each, nor exceed **1.53** tons per year each, based on a 12-month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **1.40** pounds per hour each, nor exceed **1.53** tons per year each, based on a 12-month rolling period.
- c. NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of the baghouse for S2.013 and S2.014 each will not equal or exceed 20% in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stack of the baghouse for **S2.013 and S2.014** each will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Operating Parameters

- a. The maximum allowable loading rate for **S2.013 and S2.014** will not exceed **0.20** ton per hour of gold sludge and flux, each, per any one-hour period, nor exceed **438.0** tons per year of gold sludge and flux, each, based on a 12-month rolling period.
- b. **S2.013 and S2.014** may operate **8,760** hours per year, each.

#### 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. Periodic Compliance Testing
  - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **S2.013** and **S2.014**. The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests. The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition BP.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in BP.3.a. of this Section).
    - (i) Method 201A and 202 compliance tests in accordance with 40 CFR Part 51, Appendix M (or an alternative method approved by the Director pursuant to (NAC 445B.252 and Sections I.U and I.V of this operating permit) for PM<sub>10</sub>.
    - (ii) Method 5 or 17 (with back-half catch) compliance tests for PM in accordance with 40 CFR Part 60, Appendix A (or an alternative method approved by the Director pursuant to (NAC 445B.252 and Sections I.U and I.V of this operating permit).
  - (2) The Method 201A and Method 202 tests required in BP.4.a.(1) of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in BP.2.a. of this section.
  - (3) Compliance tests required under BP.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in BP.3.a. of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
  - (4) Concurrent with each periodic PM and PM<sub>10</sub> compliance tests, conduct and record a Method 9 visible emission test on the single exhaust stack of **S2.013 and S2.014** in accordance with 40 CFR Part 60, Appendix A (or an alternative reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

#### BP. Emission Units S2.013 and S2.014 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring and Recordkeeping

On and after the date of initial start up, Permittee will:

- Monitor and record the loading of gold sludge and flux for S2.013 and S2.014 each on a daily basis. At the end of each calendar month, record the total monthly material throughput and the total material loaded for the previous 12 months.
- (2) Monitor and record the hours of operation of \$2.013 and \$2.014 on a daily basis.
- (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across the baghouse for S2.013 and S2.014.
- (4) Conduct and record a reading of the pressure drop across the baghouse once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the specified operating range and record any corrective actions taken.
- (5) Maintain records of the specified operating range for the Baghouse for S2.013 and S2.014 on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
- (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of the **Baghouse** for **S2.013 and S2.014** on a **monthly** basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.013** and **S2.014** are operating and have the potential to create visible emissions. If the **Baghouse** for **S2.013** and **S2.014** is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.013** and **S2.014** not operating or due to poor weather conditions.
- (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (8) The hourly loading rate of gold sludge and flux in ton per hour for **S2.013** and **S2.014** each will be determined from the total daily loading and the total daily hours of operation recorded above.
- (9) The required monitoring established in (1) through (8) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.013 and S2.014** each, are operating:
  - The calendar date of any required monitoring.
  - (ii) The total daily throughput rate of gold sludge and flux, in tons, for the corresponding date.
  - (iii) The total daily hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of gold sludge and flux, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
  - (v) Records of the daily reading of the pressure drop across the Baghouse for S2.013 and S2.014.
  - (vi) Results and verification of the **monthly** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Shielded Requirements**

Compliance with conditions BP.1 through BP.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

BQ. Emission Units S2.033 location North 4,536.0 km, East 554.4 km, UTM (Zone 11)

#### BQ. System 69 - Analytical Laboratories Sample Preparation

S 2.033.1 Crushers 2.033.2 **Pulverizers** 

S 2.033.3 Sample reject conveyor

#### NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

Emissions from \$2.033 will be ducted to a control system consisting of a baghouse. The baghouse will be operated in accordance with the manufacturer's recommendations at all times during the operation of \$2.033, including startup and shutdown. The capture efficiency of the control system will be 100% such that all process emissions from \$2.033 will be captured and ducted to the baghouse.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Emission Limits** 

On and after the date of startup of \$2.033, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of the baghouse for \$2.033, the following pollutants in excess of the following specified limits:

- NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 1.05 pounds per hour.
- NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed b. 1.05 pounds per hour.
- NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of the baghouse for \$2.033 will not equal or exceed C. 20% in accordance with NAC 445B.22017.
- d NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stack of the baghouse for \$2.033 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### NAC 445B.3405 (NAC 445B.316) Part 70 Program 3

- The maximum allowable throughput rate for \$2.033 will not exceed 3.876 tons of gold ore and mine rock samples total, per any onehour period.
- \$2.033 may operate 8,760 hours per year.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

#### BQ. Emission Units S2.033 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the throughput of gold ore and mine rock samples for \$2.033 on a monthly basis.
- (2) Monitor and record the hours of operation for **\$2.033** on a monthly basis.
- (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across the Baghouse for \$2.033.
- (4) Conduct and record a reading of the pressure drop across the **Baghouse** for **S2.033** once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the specified operating range and record any corrective actions taken.
- (5) Maintain records of the specified operating range for the Baghouse for \$2.033 on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
- (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of the **Baghouse** for **S2.033** on a **monthly** basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.033** is operating and has the potential to create visible emissions. If the **Baghouse** for **S2.033** is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.033** not operating or due to poor weather conditions.
- (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (8) The hourly throughput rate gold ore and mine rock samples of in tons per hour for **\$2.033** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- (9) The required monitoring established in (1) through (8) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.033**, is operating.
  - The calendar date of any required monitoring.
  - (ii) The total monthly throughput rate of gold ore and mine rock samples, in tons, for the corresponding date.
  - (iii) The total monthly hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of gold ore and mine rock samples, in tons per hour. The average hourly throughput rate will be determined from the monthly throughput rate and the total monthly hours of operation recorded in (1) and (2) above.
  - (v) Records of the daily pressure drop reading across the **Baghouse** for **S2.033**.
  - (vi) Results and verification of the **monthly** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions BQ.1 through BQ.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

BR. Emission Units S2.051 location North 4,536.0 km, East 554.4 km, UTM (Zone 11)

## BR. System 70 - Analytical Laboratory, Fire Assay Facility

3	2.051.1	Assay lulliaces
S	2.051.2	Tumbler
S	2.051.3	Mixed flux dispenser
S	2.051.4	Drag conveyor
S	2.051.5	Furnace tables
S	2.051.6	Waste crusher

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

Emissions from **S2.051** will be ducted to a control system consisting of a baghouse. The baghouse will be operated in accordance with the manufacturer's recommendations at all times during the operation of **S2.051**, including startup and shutdown. The capture efficiency of the control system will be 100% such that all process emissions from **S2.051** will be captured and ducted to the baghouse.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

On and after the date of startup of **S2.051**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of the baghouse for **S2.051**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **2.47** pounds per hour.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **2.47** pounds per hour.
- c. NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of the baghouse for **\$2.051** will not equal or exceed **20%** in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stack of the baghouse for **\$2.051** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

- The maximum allowable throughput rate for \$2.051 will not exceed 0.468 ton of assay samples total, per any one-hour period.
- b. **\$2.051** may operate **8,760** hours per calendar year.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

#### BR. Emission Units S2.051 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
  - a. Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the throughput of assay samples for **S2.051** on a monthly basis.
- (2) Monitor and record the hours of operation for **S2.051** on a monthly basis.
- (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across the Baghouse for \$2.051.
- (4) Conduct and record a reading of the pressure drop across the **Baghouse** for **S2.051** once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the specified operating range and record any corrective actions taken.
- (5) Maintain records of the specified operating range for the Baghouse for S2.051 on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
- (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of the **Baghouse** for **S2.051** on a **monthly** basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.051 is** operating and has the potential to create visible emissions. If the **Baghouse** for **S2.051** is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.051** not operating or due to poor weather conditions.
- (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (8) The hourly throughput rate of assay samples in tons per hour for **S2.051** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- (9) The required monitoring established in (1) through (8) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.051** is operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total monthly throughput rate of assay samples, in tons, for the corresponding date.
  - (iii) The total monthly hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of assay samples, in tons per hour. The average hourly throughput rate will be determined from the monthly throughput rate and the total monthly hours of operation recorded in (1) and (2) above.
  - (v) Records of the daily reading of the pressure drop across the **Baghouse** for **S2.051**.
  - (vi) Results and verification of the **monthly** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions BR.1 through BR.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

BS. Emission Units S2.067 location North 4,536.0 km, East 554.3 km, UTM (Zone 11)

#### BS. System 71 - Metallurgical Laboratory Sample Preparation

S 2.067.1 CrusherS 2.067.2 CrusherS 2.067.3 Pulverizer

#### 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Air Pollution Equipment

Emissions from **S2.067** will be ducted to a control system consisting of a baghouse. The baghouse will be operated in accordance with the manufacturer's recommendations at all times during the operation of **S2.067**, including startup and shutdown. The capture efficiency of the control system will be 100% such that all process emissions from **S2.067** will be captured and ducted to the baghouse.

#### 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Emission Limits</u>

On and after the date of startup of **S2.067**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of the baghouse for **S2.067**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.64** pound per hour.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.64** pound per hour.
- c. NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of the baghouse for **S2.067** will not equal or exceed **20%** in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stack of the baghouse for **\$2.067** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

- a. The maximum allowable throughput rate for **S2.067** will not exceed **0.21** tons of gold ore and mine rock samples total, per any one-hour period.
- b. **\$2.067** may operate **8,760** hours per year.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

#### BS. Emission Units S2.067 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the throughput of gold ore and mine rock samples for **\$2.067** on a monthly basis.
- (2) Monitor and record the hours of operation for the **\$2.067** on a monthly basis.
- (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across the **Baghouse** for **S2.067**.
- 4) Conduct and record a reading of the pressure drop across the **Baghouse** for **S2.067** once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the specified operating range and record any corrective actions taken.
- (5) Maintain records of the specified operating range for the Baghouse for \$2.067 on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
- (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of the **Baghouse** for **S2.067** on a **monthly** basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.067** is operating and has the potential to create visible emissions. If the **Baghouse** for **S2.067** is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.067** not operating or due to poor weather conditions.
- (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (8) The hourly throughput rate of gold ore and mine rock samples in tons per hour for **\$2.067** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- (9) The required monitoring established in (1) through (8) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.067** is operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total monthly throughput rate of gold ore and mine rock samples, in tons, for the corresponding date.
  - (iii) The total monthly hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of gold ore and mine rock samples, in tons per hour. The average hourly throughput rate will be determined from the monthly throughput rate and the total monthly hours of operation recorded in (1) and (2) above.
  - (v) Records of the daily reading of the pressure drop across the **Baghouse** for **S2.067**.
  - (vi) Results and verification of the **monthly** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions BS.1 through BS.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

BT. Emission Units S2.074 location North 4,536.0 km, East 554.3 km, UTM (Zone 11)

#### BT. System 72 - Metallurgical Laboratory, Fire Assay Facility

S 2.074 Bench-top roasters

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

Emissions from **S2.074** will be ducted to a control system consisting of a baghouse. The baghouse will be operated in accordance with the manufacturer's recommendations at all times during the operation of **S2.074**, including startup and shutdown. The capture efficiency of the control system will be 100% such that all process emissions from **S2.074** will be captured and ducted to the baghouse.

2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

**Emission Limits** 

On and after the date of startup of **S2.074**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of the baghouse for **S2.074**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.192** pound per hour.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.192** pound per hour.
- c. NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of the baghouse for **\$2.074** will not equal or exceed **20%** in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stack of the baghouse for **S2.074** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Operating Parameters</u>
  - The maximum allowable throughput rate for \$2.074 will not exceed 0.0104 ton of assay samples total, per any one-hour period.
  - b. **\$2.074** may operate **8,760** hours per year.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

#### BT. Emission Units S2.074 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the throughput of assay samples for **S2.074** on a monthly basis.
- (2) Monitor and record the hours of operation for **\$2.074** on a monthly basis.
- (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across the **Baghouse** for.
- (4) Conduct and record a reading of the pressure drop across the **Baghous**e for **S2.074** once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the specified operating range and record any corrective actions taken.
- (5) Maintain records of the specified operating range for the Baghouse for \$2.074 on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
- (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of the **Baghouse** for **S2.074** on a **monthly** basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.074** is operating and has the potential to create visible emissions. If the **Baghouse** for **S2.074** is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.074** not operating or due to poor weather conditions.
- (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (8) The hourly throughput rate of assay samples in tons per hour for **\$2.074** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- (9) The required monitoring established in (1) through (8) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.074** is operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total monthly throughput rate of assay samples, in tons, for the corresponding date.
  - (iii) The total monthly hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of assay samples, in tons per hour. The average hourly throughput rate will be determined from the monthly throughput rate and the total monthly hours of operation recorded in (1) and (2) above.
  - (v) Records of the daily reading of the pressure drop across the **Baghouse** for **S2.074**.
  - (vi) Results and verification of the **monthly** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions BT.1 through BT.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

BU. Emission Units S2.079 and PF1.027 Removed from the permit as part of the Renewal Process (December 27, 2005)

BU. System 73 - AA Block Heap Leaching Lime Silo (Removed)

S 2.079 Lime silo (loading)

PF 1.027 Lime silo (discharge)

### **BUREAU OF AIR POLLUTION CONTROL**

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# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

BV. Emission Units S2.025 through S2.027 location North 4,536.0 km, East 554.9 km, UTM (Zone 11)

#### BV. System 74 - Propane Vaporizers

S 2.025 Propane vaporizer #1
S 2.026 Propane vaporizer #2
S 2.027 Propane vaporizer #3

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

S2.025 through S2.027 each will be operated in a manner that minimizes emissions.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Emission Limits** 

On and after the date of startup of **S2.025 through S2.027**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **S2.025 through S2.027**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.069** pound per hour each.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.069** pound per hour each.
- c. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **0.004** pound per hour each.
- d. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed **1.33** pounds per hour each.
- e. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere will not exceed **0.41** pound per hour each.
- f. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed **0.51** pound per hour each.
- NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stacks of S2.025 through S2.027 will not equal or exceed 20% in accordance with NAC 445B.22017.
- h. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stacks of **\$2.025 through \$2.027** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

- S2.025 through S2.027 may only combust HD- 5 grade propane only.
- b. The maximum HD-5 propane heat input rate for \$2.025 through \$2.027 will not exceed 4.6 million Btu's per any one-hour period, each
- c. The maximum fuel consumption rate for S2.025 through S2.027 will not exceed 50.2 gallons of HD-5 grade propane per any one-hour period, each
- d. S2.025 through S2.027 may operate 8,760 hours per year, each.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

#### BV. Emission Units S2.025 through S2.027 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. <u>Monitoring, Recordkeeping, Reporting and Compliance</u>
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of HD-5 propane combusted in S2.025 through S2.027 on a monthly basis.
    - (2) Monitor and record the hours of operation of **S2.025 through S2.027** on a monthly basis.
    - (3) Install, calibrate, operate and maintain a device for the measurement of the fuel combustion rate for \$2.025 through \$2.027.
    - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (5) The hourly propane heat input rate in millions of Btu's per hour for **S2.025 through S2.027** will be determined from the total monthly propane consumption and the total monthly hours of operation recorded above.
    - (6) The required monitoring established in (1) through (5) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.025** through **\$2.027** each, are operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total monthly hours of operation for the corresponding date.
      - (iii) The total monthly fuel consumption rate of gallons of HD-5 grade propane for the corresponding date.
      - (iv) The corresponding average hourly fuel consumption rate of gallons of HD-5 grade propane. The average hourly fuel consumption rate will be determined from the monthly fuel consumption rate and the total monthly hours of operation recorded in (1) and (2) above.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program Shielded Requirements

Compliance with conditions BV.1 through BV.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

 BW.
 Emission Unit S2.080
 Location North 4,536.4 km, East 554.6 km, UTM (Zone 11)

 Emission Unit S2.081
 Location North 4,537.1 km, East 552.3 km, UTM (Zone 11)

 Emission Unit S2.082
 Location North 4,536.0 km, East 554.9 km, UTM (Zone 11)

 Emission Unit S2.083
 Location North 4,538.0 km, East 551.9 km, UTM (Zone 11)

#### BW. System 75 - Fuel Storage Tanks

S	2.080	Fuel oil storage tank, 150,000 gallons
S	2.081	Fuel oil storage tank, 250,000 gallons
S	2.082	Gasoline storage tank, 12,000 gallons
S	2.083	Fuel oil storage tank, 34,200 gallons

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

\$2.080 through \$2.083 each are fixed roof tanks equipped for submerged filling.

- 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Emission Limits</u>
  - a. On and after the date of startup of **\$2.080**, Permittee will not discharge or cause the discharge into the atmosphere from **\$2.080**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed **0.28** ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.22017 (State Only Requirement) The opacity from S2.080 will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (3) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from \$2.080 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **S2.081**, Permittee will not discharge or cause the discharge into the atmosphere from **S2.081**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.085 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.22017 (State Only Requirement) The opacity from **S2.081** will not equal or exceed **20%** in accordance with NAC 445B.22017.
    - (3) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from \$2.081 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - c. On and after the date of startup of \$2.082, Permittee will not discharge or cause the discharge into the atmosphere from \$2.082, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed **3.19** tons per year, based on a 12-month rolling period.
    - (2) NAC 445B.22017 (State Only Requirement) The opacity from \$2.082 will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (3) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from \$2.082 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - d. On and after the date of startup of **S2.083**, Permittee will not discharge or cause the discharge into the atmosphere from **S2.083**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.018 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.22017 (State Only Requirement) The opacity from S2.083 will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (3) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from \$2.083 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

BW. Emission Units S2.080 through S2.083 (continued)

- NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Operating Parameters
  - a. **S2.080, S2.081 and S2.083** each may store fuel oil only.
  - b. S2.082 may store gasoline only.
  - c. The maximum allowable throughput for **\$2.080** will not exceed **25,000,000** gallons of #2 fuel oil per year, based on a 12-month rolling period.
  - d. The maximum allowable throughput for **S2.081** will not exceed **5,600,000** gallons of #2 fuel oil per year, based on a 12-month rolling period
  - e. The maximum allowable throughput for **\$2.082** will not exceed **530,000** gallons of gasoline per year, based on a 12-month rolling period.
  - f. The maximum allowable throughput for **\$2.083** will not exceed **3,000,000** gallons of #2 fuel oil per year, based on a 12-month rolling period.
  - g. **S2.080 through S2.083** each may operate **8,760** hours per year.
- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. <u>Monitoring, Recordkeeping, Reporting and Compliance</u>

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the amount of fuel loaded in **S2.080 through S2.083** each, on a monthly basis. At the end of each calendar month, record the total fuel throughput for the previous 12 months.
- (2) Maintain records of the tank dimensions and capacity for the life of **S2.080 through S2.083** each in accordance with 40 CFR. Part 60, Subpart Kb.
- (3) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Shielded Requirements</u>

N/A

### **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

BX. Emission Units S2.104 through S2.107 Location North 4,539.3 km, East 551.9 km, UTM (Zone 11)

#### BX. System 76 - Meikle Mine Air Heaters

S 2.104 Air heater #1
S 2.105 Air heater #2
S 2.106 Air heater #3
S 2.107 Air heater #4

NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

S2.104 through S2.107 each will be operated in a manner that minimizes emissions.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Emission Limits** 

On and after the date of startup of **S2.104 through S2.107**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stream of **S2.104 through S2.107**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.37** pound per hour total, nor exceed **0.20** ton per year total, based on a 12 month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.37** pound per hour total, nor exceed **0.20** ton per year total, based on a 12 month rolling period.
- c. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **0.052** pound per hour total, nor exceed **0.028** ton per year total, based on a 12 month rolling period.
- d. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 11.63 pounds per hour total, nor exceed 6.18 tons per year total, based on a 12 month rolling period.
- e. T (NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere will not exceed **1.96** pounds per hour total, nor exceed **1.04** tons per year total, based on a 12 month rolling period.
- f. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed **0.31** pound per hour total, nor exceed **0.16** ton per year total, based on a 12 month rolling period.
- g. NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stream of S2.104 through S2.107 each will not equal or exceed 20% in accordance with NAC 445B.22017.
- h. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stream of **S2.104 through S2.107** each will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

- a. **S2.104 through S2.107** each may combust HD- 5 grade propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
- b. The fuel heat input rate for **S2.104 through S2.107** will not exceed **56.1** million Btu's per any one hour period, total, nor exceed **59,540** million Btu's per year, total, based on a 12-month rolling period.
- c. The maximum fuel consumption rate for S2.104 through S2.107 will not exceed 612.5 gallons of HD-5 grade propane per any one-hour period, total.
- d. The maximum fuel consumption rate for **S2.104 through S2.107** will not exceed **56,100** cubic feet of pipeline quality natural gas per any one-hour period, total.
- e. **S2.104 through S2.107** each may operate **8,760** hours per year, each.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

#### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

#### BX. Emission Units S2.104 through S2.107 (continued)

- . NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of initial startup, Permittee will:

- Monitor and record the type and amount of fuel (HD-5 propane or pipeline quality natural gas) combusted in **S2.104 through S2.107** each on a monthly basis.
- (2) Monitor and record the hours of operation of **S2.104 through S2.107** each on a monthly basis.
- (3) Install, calibrate, operate and maintain a device for the measurement of the fuel combustion rate for **S2.104 through S2.107** each.
- (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (5) The hourly fuel heat input rate in millions of Btu's per hour for **S2.104 through S2.107** each, will be determined from the total monthly fuel consumption and the total monthly hours of operation recorded above.
- (6) The required monitoring established in (1) through (5) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.104 through S2.107** each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total monthly hours of operation for the corresponding date.
  - (iii) The total monthly fuel consumption rate of gallons of HD-5 grade propane or cubic feet of pipeline quality natural gas for the corresponding date.
  - (iv) The corresponding average hourly fuel consumption rate of gallons of HD-5 grade propane or cubic feet of pipeline quality natural gas. The average hourly fuel consumption rate will be determined from the monthly fuel consumption rate and the total monthly hours of operation recorded in (1) and (2) above.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Shielded Requirements**

Compliance with conditions BX.1 through BX.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

BY. Emission Units PF1.125 and PF1.126 Location North 4,538.1 km, East 552.1 km, UTM (Zone 11)

#### BY. System 77 - Rodeo Shaft

F 1.125 Skip (discharge)

PF 1.126 Chute (discharge)

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- Emissions from PF1.125 will be controlled by an enclosure.
- b. **PF1.126** will be operated in a manner that minimizes emissions.

### 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### **Emission Limits**

- a. On and after the date of startup of **PF1.125**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.125**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.022 pound per hour, nor exceed 0.032 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.063** pound per hour, nor exceed **0.093** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.125** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.125** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.126**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.126**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.236 pound per hour, nor exceed 0.344 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.673** pound per hour, nor exceed **0.983** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.126** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.126** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable discharge rate for **PF1.125** and **PF1.126** will not exceed **250.0** tons of ore/rock per any one-hour period, each, nor more than **730,000** tons of ore/rock per year, each, based on a 12-month rolling period.
- b. PF1.125 and PF1.126 may operate 8,760 hours per year, each.

# **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

#### BY. Emission Units PF1.125 and PF1.126 (continued)

- . NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. Monitoring, Recordkeeping, Reporting and Compliance
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput rate for PF1.125 and PF1.126 each on a daily basis. At the end of the calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation for PF1.125 and PF1.126 each on a daily basis
    - (3) Conduct and record an inspection of the enclosure on **PF1.125** on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (4) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.125 and PF1.126 each on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.125 and PF1.126 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.125 and PF1.126 not operating or due to poor weather conditions.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly discharge rate in tons per hour for **PF1.125 and PF1.126** each will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.125 and PF1.126** each, are operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily throughput rate of ore/rock, in tons, for the corresponding date.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of ore/rock, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
      - (v) Results and verification of the **monthly** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions BY.1 through BY.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

BZ. Emission Unit S2.224 Location North 4,538.6 km, East 552.1 km, UTM (Zone 11)

#### BZ. System 78 - Cooling Tower

S 2.224 Oxygen plant cooling tower

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

Emissions from **\$2.224** will be controlled by drift eliminators with a manufacturer's guaranteed drift loss of 0.008% of total circulating flow and operated in a manner which ensures compliance with the emission limits and the opacity standard.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

On and after the date of startup of **S2.224**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.224**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.238 pound per hour.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed 0.238 pound per hour.
- NAC 445B.22017 (State Only Requirement) The opacity from \$2.224 will not equal or exceed 20% in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vent of **\$2.224** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Operating Parameters

- Circulating water flow rate of \$2.224 will not exceed 7,600 gallons of water per minute.
- b. The total dissolved solids content (TDS) of the circulating water in \$2.224 will not exceed 2500 ppm.
- c. **\$2.224** may operate 8,760 hours per year.
- The use of chromium based water treatment chemicals is prohibited.

#### 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- Monitoring, Recordkeeping, Reporting and Compliance
  - On and after the date of initial startup, Permittee will:
  - Monitor and record the TDS value of the circulating water of \$2.224 on a calendar quarter basis.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions BZ.1 through BZ.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

CA. Emission Units PF1.327, PF1.328, PF1.328.1 and PF1.329 - Removed from the permit as part of the Renewal Process.

#### CA. System 79 - Removed

PF 1.327 Bin

PF 1.328 Feeder PF 1.328.1 Conveyor

PF 1.329 Stacker

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section VI. Specific Operating Conditions (continued)

CB. Emission Units PF1.330, PF1.331, PF1.332, PF1.333, PF1.333.1 and PF1.334 - Removed from the permit as part of the Renewal Process

# CB. System 80 - Removed PF 1.330 Headframe buckets PF 1.331 Headframe chute PF 1.332 Bin PF 1.333 Feeder PF 1.333.1 Conveyor PF 1.334 Stacker

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

CC. Emission Units S2.303, S2.304, PF1.335, and PF1.336 Location North 4,538.1 km, East 552.1 km, UTM (Zone 11)

#### CC. System 81 - Rodeo Backfill Mixing Plant Cement/Fly Ash Silos #1 and #2

S 2.303 Cement/fly ash silo #1 (loading)

S 2.304 Cement/fly ash silo #2 (loading)

PF 1.335 Cement/fly ash silo #1 discharge/transfer to screw conveyor

PF 1.336 Cement/fly ash silo #2 discharge/transfer to screw conveyor

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Air Pollution Equipment

- a. Emissions from **S2.303** and **S2.304** each will be ducted to a vent filter with 100% capture.
- Emissions from PF1.335 and PF1.336 each will be controlled by full enclosures.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **S2.303 and S2.304**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vents of **S2.303 and S2.304**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.324 pound per hour, each, nor exceed 0.270 ton per year, total, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.324** pound per hour, each, nor exceed **0.270** ton per year, total, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from exhaust vents of **S2.303 and S2.304** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vents of **\$2.303** and **\$2.304** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- On and after the date of startup of **PF1.335** and **PF1.336**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.335** and **PF1.336**, the following pollutants in excess of the following specified limits:
  - NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.240** pound per hour, each, nor exceed **0.200** ton per year, total, based on a 12month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.240** pound per hour, each, nor exceed **0.200** ton per year, total, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.335 and PF1.336 will not equal or exceed 20% in accordance with NAC445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.335** and **PF1.336** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable loading rate for **S2.303 and S2.304** will not exceed **120.0** tons of cement/fly ash per any one-hour period, each, nor more than **200,000** tons of cement/fly ash per year, total, based on a 12-month rolling period.
- b. The maximum allowable throughput rate for **PF1.335 and PF1.336** will not exceed **120.0** tons of cement/fly ash per any one-hour period, each, nor more than **200,000** tons of cement/fly ash per year, total, based on a 12-month rolling period.
- c. **S2.303, S2.304, PF1.335 and PF1.336** may operate **8,760** hours per year, each.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

- CC. Emission Units S2.303, S2.304, PF1.335, and PF1.336 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - a. Monitoring, Recordkeeping, Reporting and Compliance
      On and after the date of initial startup, Permittee will:
      - (1) Monitor and record the amount of cement/fly ash loaded into **S2.303 and S2.304** and the duration of the loading each day loading occurs. At the end of the calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
      - (2) Monitor and record the amount of Cement/fly ash discharged from PF1.335 and PF1.336 on a monthly basis. The amount of cement/fly ash will be based on purchasing receipts and measurements of the level of the cement/fly ash in the silo at the beginning and end of the month. At the end of each calendar month, record the total cement/fly ash throughput for the previous 12 months.
      - (3) Monitor and record the hours of operation of PF1.335 and PF1.336 on a monthly basis.
      - (4) Install, calibrate, operate and maintain a device for the measurement of the level of the cement/fly ash in the silos.
      - (5) Conduct and record an inspection of the vent filters on **S2.303 and S2.304** on a **quarterly** basis noting the condition of the filters and housing. Record the inspection results and any corrective actions taken.
      - (6) Conduct and record an inspection of the enclosures on **PF1.335** and **PF1.336** on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
      - (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vents of \$2.303 and \$2.304 each on a monthly basis, and from PF1.335 and PF1.336 each on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while \$2.303, \$2.304, PF1.335 and PF1.336 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to \$2.303, \$2.304, PF1.335 and PF1.336 not operating or due to poor weather conditions.
      - (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (9) The hourly throughput rate in tons per hour for **PF1.335** and **PF1.336** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
      - (10) The hourly loading rate in tons per hour for **S2.303** and **S2.304** will be determined from the total daily throughput and the total daily hours of operation recorded above.
      - (11) The required monitoring established in (1) through (10) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.335**, **PF1.336**, **S2.303** and **S2,304** each, are operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total daily and monthly throughput rate of cement/fly ash, in tons, for the corresponding date.
        - (iii) The total daily and monthly hours of operation for the corresponding date.
        - (iv) The corresponding average hourly throughput rate of cement/fly ash, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in (1), (2) and (3) above.
        - (v) Results and condition of the quarterly inspection of the vent filters on S2.303 and S2.304 each, and any corrective actions taken.
        - (vi) Results and verification of the **monthly** visible emissions surveys, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Shielded Requirements

Compliance with conditions CC.1 through CC.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

CD. Emission Unit PF1.340 Location North 4,538.1 km, East 552.1 km, UTM (Zone 11)

#### CD. System 82 - Rodeo Backfill Mixing Plant Slurry Mixer

PF 1.340 Mixer loading

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

Emissions from PF1.340 will be controlled by a building enclosure.

- NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Emission Limits</u>
  - a. On and after the date of startup of **PF1.340**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.340**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.480** pound per hour, nor exceed **0.400** ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.480** pound per hour, nor exceed **0.400** ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.340 will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.340** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  Operating Parameters
  - a. The maximum allowable loading rate for **PF1.340** will not exceed **120.0** tons of cement and fly ash per any one-hour period, nor more than **200,000** tons of cement and fly ash per year, based on a 12-month rolling period.
  - b. **PF1.340** may operate **8,760** hours per year.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

#### CD. Emission Unit PF1.340 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. Monitoring, Recordkeeping, Reporting and Compliance
    On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of **PF1.340** on a daily basis. At the end of the calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.340** on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.340 on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.340 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.340 not operating or due to poor weather conditions.
    - (4) Conduct and record and inspection of the enclosure on **PF1.340** on an annual basis to verify that the enclosure is intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly loading rate in tons per hour for **PF1.340** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.340** is operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily throughput rate of cement and fly ash, in tons, for the corresponding date.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of cement and fly ash, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
      - (v) Results and verification of the **monthly** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions CD.1 through CD.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section VI. Specific Operating Conditions (continued)

CE. and CF. Systems 83 and 84 - Removed from permit January 3, 2002.

#### CE. and CF. Systems 83 and 84 - Rodeo Shotcrete Plant

- S 2.305 Cement/Fly Ash Silo #1 (pneumatic loading)
- S 2.306 Cement/Fly Ash Silo #2 (pneumatic loading)
- PF 1.341 Cement/Fly Ash Silo #1 (discharge to screw conveyor)
- PF 1.342 Cement/Fly Ash Silo #2 (discharge to screw conveyor)
- PF 1.343 Sand/Aggregate transfer from Stack to Feeder Hopper & Conveyor
- PF 1.344 Sand/Aggregate transfer from Stack to Feeder Hopper & Conveyor
- PF 1.345 Weigh Hopper Loading
- PF 1.346 Mixer Loading

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

CG. Emission Unit PF1.347 Location North 4,538.1 km, East 552.1 km, UTM (Zone 11)

#### CG. System 85 - Rodeo Backfill Feed Plant Aggregate Feed

1.347 Feed hopper loading

> NAC 445B.3405 (NAC 445B.316) Part 70 Program 1. Air Pollution Equipment

Emissions from PF1.347 will be controlled by a wind shield.

NAC 445B.3405 (NAC 445B.316) Part 70 Program

Emission Limits

On and after the date of startup of PF1.347, Permittee will not discharge or cause the discharge into the atmosphere from PF1.347, the following pollutants in excess of the following specified limits:

- NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> to the atmosphere will not exceed 0.083 pound per hour, nor exceed 0.072 ton per year, based on a 12-month rolling period.
- NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM to the atmosphere will not exceed 0.236 pound per hour, nor exceed 0.205 ton per year, based on a 12-month rolling period.
- NAC 445B.22017 (State Only Requirement) The opacity from PF1.347 will not equal or exceed 20% in accordance with NAC 445B.22017.
- NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from PF1.347 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- NAC 445B.3405 (NAC 445B.316) Part 70 Program 3.

- The maximum allowable loading rate for PF1.347 will not exceed 750.0 tons of aggregate per any one-hour period, nor more than **1,300,000** tons of aggregate per year, based on a 12-month rolling period.
- PF1.347 may operate 8,760 hours per year.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

#### CG. Emission Unit PF1.347

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. Monitoring, Recordkeeping, Reporting and Compliance
    On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of PF1.347 on a daily basis. At the end of the calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.347** on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.347 on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.347 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.347 not operating or due to poor weather conditions.
    - (4) Conduct and record an inspection of the windshield on **PF1.347** on an annual basis to verify that the wind shield is intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly loading rate in tons per hour for **PF1.347** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that PF1.347 is operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily throughput rate of aggregate, in tons, for the corresponding date.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of aggregate, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
      - (v) Results and verification of the **monthly** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Shielded Requirements**

Compliance with conditions CG.1 through CG.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

CH. Emission Units PF1.350 and PF1.351 Location North 4,538.1 km, East 552.1 km, UTM (Zone 11)

#### CH. System 86 - Rodeo Shotcrete Loadout Station

PF 1.350 Delivery truck discharge PF 1.351 Screw conveyor discharge

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

Emissions from PF1.350 and PF1.351 will be controlled by full enclosures.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Emission Limits** 

On and after the date of startup of **PF1.350** and **PF1.351**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.350** and **PF1.351**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.120** pound per hour, each, nor exceed **0.060** ton per year, each, based on a 12-month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.120** pound per hour, each, nor exceed **0.060** ton per year, each, based on a 12-month rolling period.
- c. NAC 445B.22017 (State Only Requirement) The opacity from PF1.350 and PF1.351 will not equal or exceed 20% in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.350** and **PF1.351** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable throughput rate for **PF1.350** and **PF1.351** will not exceed **60.0** tons of shotcrete per any one-hour period, each, nor more than **60,000** tons of shotcrete per year, each, based on a 12-month rolling period.
- b. **PF1.350 and PF1.351** may operate **8,760** hours per year, each.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

#### CH. Emission Units PF1.350 and PF1.351 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring, Recordkeeping, Reporting and Compliance
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of **PF1.350 and PF1.351** on a daily basis. At the end of the calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.350** and **PF1.351** on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.350** and **PF1.351** each on a **monthly** basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.350** and **PF1.351** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.350** and **PF1.351** not operating or due to poor weather conditions.
    - (4) Conduct and record an inspection of the enclosures on **PF1.350 and PF1.351** on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly throughput rate in tons per hour for **PF1.350** and **PF1.351** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.350 and PF1.351** each, are operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily throughput rate of shotcrete, in tons, for the corresponding date.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of shotcrete, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
      - (v) Results and verification of the **monthly** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions CH.1 through CH.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

CI. Emission Units S2.307 through S2.310 Location North 4,538.1 km, East 552.1 km, UTM (Zone 11)

# CI. System 87 - Rodeo Mine Air Heaters

S 2.307 Mine air heater #1
S 2.308 Mine air heater #2
S 2.309 Mine air heater #3
S 2.310 Mine air heater #4

NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

\$2.307 through \$2.310 will be controlled in a manner which minimizes emissions.

2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

**Emission Limits** 

On and after the date of startup of **S2.307 through S2.310**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust streams of **S2.307 through S2.310**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.75** pound per hour total, nor exceed **0.49** ton per year total, based on a 12-month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.75** pound per hour total, nor exceed **0.49** ton per year total, based on a 12-month rolling period.
- c. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **0.046** pound per hour total, nor exceed **0.03** ton per year total, based on a 12-month rolling period.
- d. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed **10.00** pounds per hour total, nor exceed **6.53** tons per year total, based on a 12-month rolling period.
- e. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere will not exceed **15.0** pounds per hour total, nor exceed **9.80** tons per year total, based on a 12-month rolling period.
- f. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed **11.50** pounds per hour total, nor exceed **7.51** tons per year total, based on a 12-month rolling period.
- g. NAC 445B.22017 (State Only Requirement) The opacity from the exhaust streams of **S2.307 through S2.310** each will not equal or exceed **20%** in accordance with NAC 445B.22017.
- h. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust streams of **\$2.307** through **\$2.310** each will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- S2.307 through S2.310 each may only combust HD- 5 grade propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
- b. The fuel heat input rate for **S2.307 through S2.310** will not exceed **50.0** million Btu's per any one hour period total, nor exceed **65,333** million Btu's per year total, based on a 12-month rolling period.
- c. The maximum fuel consumption rate for S2.307 through S2.310 will not exceed 546.0 gallons of HD-5 grade propane per any one-hour period, total.
- d. The maximum fuel consumption rate for **S2.307 through S2.310** will not exceed **50,000** cubic feet of pipeline quality natural gas per any one-hour period, total.
- e. **S2.307 through S2.310** may operate **8,760** hours per year, each.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

- CI. Emission Units S2.307 through S2.310 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - Monitoring, Recordkeeping, Reporting and Compliance
       On and after the date of initial startup, Permittee will:
      - (1) Monitor and record the type (HD-5 propane or pipeline quality natural gas) and amount of fuel combusted in **S2.307 through S2.310** total on a monthly basis. At the end of each month, record the total monthly fuel use for the previous 12 months.
      - (2) Monitor and record the hours of operation of **S2.307 through S2.310** total on a monthly basis.
      - (3) Install, calibrate, operate and maintain a device for the measurement of the fuel combustion rate for **S2.307 through S2.310** total
      - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (5) The hourly fuel heat input rate in millions of Btu's per hour for **S2.307 through S2.310** total will be determined from the total monthly fuel consumption and the total monthly hours of operation recorded above.
      - (6) The required monitoring established in (1) through (5) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.307 through \$2.310** each, are operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total monthly hours of operation for the corresponding date.
        - (iii) The total monthly fuel consumption rate of gallons of HD-5 grade propane or cubic feet of pipeline quality natural gas for the corresponding date.
        - (iv) The corresponding average hourly fuel consumption rate of gallons of HD-5 grade propane or cubic feet of pipeline quality natural gas. The average hourly fuel consumption rate will be determined from the monthly fuel consumption rate and the total monthly hours of operation recorded in (1) and (2) above.
  - 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Shielded Requirements**

Compliance with conditions CI.1 through CI.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

CJ. Emission Units PF1.352 through PF1.359 Location North 4,539.6 km, East 552.0 km, UTM (Zone 11), or Emission Units PF1.352 through PF1.359 Location North 4,538.6 km, East 552.6 km, UTM (Zone 11)

### CJ. System 88 - Backup Crushing System

PF 1.352 Crusher feeder (load)

PF 1.353 Crusher feeder (discharge)

PF 1.354 Primary crusher

PF 1.355 Crusher outlet conveyor transfer

PF 1.356 Conveyor transfer

PF 1.357 Hopper (load)

PF 1.358 Hopper (discharge)

PF 1.359 Conveyor transfer

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. At all times PF1.353 through PF1.356 and PF1.358 and PF1.359 each, process aggregate, emissions from PF1.353 through PF1.356 and PF1.358 and PF1.359 each will be controlled by pneumatic water spray systems.
- At all times PF1.352 through PF1.359 each, process ore, emissions from PF1.352 through PF1.359 each will be controlled by pneumatic water spray systems.

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Emission Limits</u>

- a. On and after the date of startup of **PF1.352**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.352**, the following pollutants in excess of the following specified limits for aggregate and one processing:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.805** pound per hour (during aggregate processing) and **0.058** pound per hour (during ore processing), nor exceed **1.260** tons per year (during aggregate processing) and **0.194** ton per year (during ore processing), based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **1.691** pounds per hour (during aggregate processing) and **0.166** pound per hour (during ore processing), nor exceed **2.646** tons per year (during aggregate processing) and **0.553** ton per year (during ore processing), based on a 12-month rolling period.
- b. On and after the date of startup of **PF1.353**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.353**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.040** pound per hour (during aggregate processing) and **0.058** pound per hour (during ore processing), nor exceed **0.063** ton per year (during aggregate processing) and **0.194** ton per year (during ore processing), based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.085** pound per hour (during aggregate processing) and **0.166** pound per hour (during ore processing), nor exceed **0.132** ton per year (during aggregate processing) and **0.553** ton per year (during ore processing), based on a 12-month rolling period.
- c. On and after the date of startup of **PF1.354**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.354**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.069 pound per hour (during aggregate processing) and 0.727 pound per hour (during ore processing), nor exceed 0.108 ton per year (during aggregate processing) and 2.423 tons per year (during ore processing), based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.145** pound per hour (during aggregate processing) and **1.526** pounds per hour (during ore processing), nor exceed **0.227** ton per year (during aggregate processing) and **5.088** tons per year (during ore processing), based on a 12-month rolling period.

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- CJ. Emission Units PF1.352 through PF1.359 (continued)
  - NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Emission Limits
    - d. On and after the date of startup of **PF1.355**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.355**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.040 pound per hour (during aggregate processing) and 0.058 pound per hour (during ore processing), nor exceed 0.063 ton per year (during aggregate processing) and 0.194 ton per year (during ore processing), based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.085** pound per hour (during aggregate processing) and **0.166** pound per hour (during ore processing), nor exceed **0.132** ton per year (during aggregate processing) and **0.553** ton per year (during ore processing), based on a 12-month rolling period.
    - e. On and after the date of startup of **PF1.356**, will not discharge or cause the discharge into the atmosphere from **PF1.356**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.040 pound per hour (during aggregate processing) and 0.058 pound per hour (during ore processing), nor exceed 0.063 ton per year (during aggregate processing) and 0.194 ton per year (during ore processing), based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.085** pound per hour (during aggregate processing) and **0.166** pound per hour (during ore processing), nor exceed **0.132** ton per year (during aggregate processing) and **0.553** ton per year (during ore processing), based on a 12-month rolling period.
    - f. On and after the date of startup of **PF1.357**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.357**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.805 pound per hour (during aggregate processing) and 0.058 pound per hour (during ore processing), nor exceed 1.260 tons per year (during aggregate processing) and 0.194 ton per year (during ore processing), based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **1.691** pounds per hour (during aggregate processing) and **0.166** pound per hour (during ore processing), nor exceed **2.646** tons per year (during aggregate processing) and **0.553** ton per year (during ore processing), based on a 12-month rolling period.
    - g. On and after the date of startup of **PF1.358**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.358**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.040 pound per hour (during aggregate processing) and 0.058 pound per hour (during ore processing), nor exceed 0.063 ton per year (during aggregate processing) and 0.194 ton per year (during ore processing), based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.085** pound per hour (during aggregate processing) and **0.166** pound per hour (during ore processing), nor exceed **0.132** ton per year (during aggregate processing) and **0.553** ton per year (during ore processing), based on a 12-month rolling period.
    - On and after the date of startup of PF1.359, Permittee will not discharge or cause the discharge into the atmosphere from PF1.359, the following pollutants in excess of the following specified limits for aggregate and ore processing:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.040 pound per hour (during aggregate processing) and 0.058 pound per hour (during ore processing), nor exceed 0.063 ton per year (during aggregate processing) and 0.194 ton per year (during ore processing), based on a 12-month rolling period.
      - 2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.085** pound per hour (during aggregate processing) and **0.166** pound per hour (during ore processing), nor exceed **0.132** ton per year (during aggregate processing) and **0.553** ton per year (during ore processing), based on a 12-month rolling period.
    - NAC 445B.22017 (State Only Requirement) The opacity from PF1.352 through PF1.359 each during aggregate crushing and ore crushing will not equal or exceed 20% in accordance with NAC 445B.22017.
    - j. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.352 through PF1.359** each during aggregate crushing and ore crushing will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

### **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

#### CJ. Emission Units PF1.352 through PF1.359 (continued)

 NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Emission Limits

k. New Source Performance Standards (NSPS) - Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.353**, **PF1.355**, **PF1.356**, **PF1.358** and **PF1.359** each will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Fugitive emissions from **PF1.353, PF1.355, PF1.356, PF1.358 and PF1.359** each, during aggregate conveying, will not exceed **10 percent** opacity. (40 CFR Part 60.672(b))
- (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction (40 CFR Part 60.11(c)).
- At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate PF1.353, PF1.355, PF1.356, PF1.358 and PF1.359 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
- I. New Source Performance Standards (NSPS) Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.354** will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Fugitive emissions from PF1.354, during aggregate crushing, will not exceed 15 percent opacity. (40 CFR Part 60.672(c))
- (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
- At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.354** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
- m. New Source Performance Standards (NSPS) Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.352 through PF1.359** will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Process fugitive emissions from **PF1.352 through PF1.359** each, during ore crushing and conveying, will not exceed **10** percent opacity. (40 CFR Part 60.382(b))
- (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
- At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.352 through PF1.359** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable throughput rate for **PF1.352 through PF1.359** will not exceed **575.0** tons of aggregate per any one-hour period, each, nor more than **1,800,000** tons of aggregate per year, each, based on a 12-month rolling period.
- b. The maximum allowable throughput rate for **PF1.352 through PF1.359** will not exceed **1,232.0** tons of ore per any one-hour period, each, nor more than **8,212,500** tons of ore per year, each, based on a 12-month rolling period.
- c. PF1.352 through PF1.359 may operate only when either System 9 or Emission Units PF1.404 and PF1.405 of System 95 are shut down.
- d. PF1.352 through PF1.359 may operate 8,760 hours per year, each.

### **BUREAU OF AIR POLLUTION CONTROL**

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## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- CJ. Emission Units PF1.352 through PF1.359 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - a. Monitoring, Recordkeeping, Reporting and Compliance
       On and after the date of initial startup, Permittee will:
      - (1) Monitor and record the throughput of aggregate and ore for **PF1.352 through PF1.359** each on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
      - (2) Monitor and record the hours of operation of PF1.352 through PF1.359 each on a daily basis.
      - Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.352 and P1.357 on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test of the visible emissions (excluding water vapor) from PF1.353 through PF1.356, PF1.358, and PF1.359 on a monthly basis. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.352 through PF1.359 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visible emissions assessment or Method 9 visible emissions test could not be conducted due to PF1.352 through PF1.359 not operating or due to poor weather conditions.
      - (4) Inspect the pneumatic water spray systems on **PF1.352 through PF1.359** each, once during each day of operation to verify that they are operating as designed. Record the inspection results and any corrective actions taken.
      - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (6) The hourly throughput rate in tons per hour for **PF1.352 through PF1.359** each will be determined from the total daily throughput and the total daily hours of operation recorded above.
      - (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.352 through PF1.359** each, are operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total daily throughput rate of aggregate and ore, in tons, for the corresponding date.
        - (iii) The total daily hours of operation for the corresponding date.
        - (iv) The corresponding average hourly throughput rate of aggregate and ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
        - (v) Records and results of the daily inspection of the pneumatic water spray systems on PF1.352 through PF1.359, and any corrective actions taken.
        - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
    - New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
       Permittee, upon the issuance date of this permit, shall:
      - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
  - 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Shielded Requirements

Compliance with conditions CJ.1 through CJ.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

## **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

CK. System 89 - Removed from permit January 3, 2002.

CK. System 89 - Surge Bin and Stacker

PF 1.360 Surge Bin

PF 1.361 Stacker (spare stacker conveyor)

## **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

CL. Emission Unit S2.311.1 Lo Emission Units S2.311.2, S2.311.3 and S2.311.4 Lo

Location North 4,536.0 km, East 554.7 km, UTM (Zone 11) Location North 4,536.0 km, East 554.7 km, UTM (Zone 11)

#### CL. System 90 - Electric Power Generators

- S 2.311.1 Diesel-fueled engine electric generator #1 (autoclave) (MP-750, Autoclave)
- S 2.311.2 Diesel-fueled engine electric generator #2 (autoclave) (MP-598, Autoclave)
- S 2.311.3 Diesel-fueled engine electric generator #3 (autoclave) (MP-606, Autoclave)
- S 2.311.4 Diesel-fueled engine electric generator #4 (autoclave) (MP-607, Autoclave)

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

**S2.311.1 through S2.311.4** will each be operated in a manner that minimizes emissions.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

On and after the date of startup of **S2.311.1 through S2.311.4**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **S2.311.1 through S2.311.4**, the following pollutants in excess of the following specified limits, as monitored under CL 4 b:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere from each of **S2.311.1 through S2.311.4** will not exceed **2.0** pounds per hour. Permittee will not discharge annual emissions of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) in excess of the amount provided in Section VII.B of this operating permit.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere from each of **\$2.311.1 through \$2.311.4** will not exceed **2.0** pounds per hour. Permittee will not discharge annual emissions of PM (particulate matter) in excess of the amount provided in Section VII.B of this operating permit.
- c. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere from each of **S2.311.1 through S2.311.4** will not exceed **61.3** pounds per hour. Permittee will not discharge annual emissions of NO<sub>x</sub> (nitrogen oxides) in excess of the amount provided in Section VII.B of this operating permit.
- d. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere from each of S2.311.1 through S2.311.4 will not exceed 1.2 pounds per hour. Permittee will not discharge annual emissions of SO<sub>2</sub> (sulfur dioxide) in excess of the amount provided in Section VII.B of this operating permit.
- e. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere from each of **S2.311.1 through S2.311.4** will not exceed **12.3** pounds per hour. Permittee will not discharge annual emissions of CO (carbon monoxide) in excess of the amount provided in Section VII.B of this operating permit.
- f. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere from each of **\$2.311.1** through **\$2.311.4** shall not exceed **2.0** pounds per hour. Permittee will not discharge annual emissions of VOC (volatile organic compounds) in excess of the amount provided in Section VII.B of this operating permit.
- g. NAC 445B.22017 and NAC 445B.2202. (State Only Requirement) The emissions from each of the exhaust stacks of S2.311.1 through S2.311.4 will not equal or exceed 20% opacity with the exception of the emissions during a warm-up period for not longer than 15 minutes to achieve operating temperatures in accordance with NAC 445B.22017 and NAC 445B.2202.
- h. NAC 445.721 and SIP Article 4.3.5 (Federally Enforceable SIP Requirements) The emissions from each of the exhaust stacks of **\$2.311.1** through **\$2.311.4** will not equal or exceed **20%** opacity with the exception of the emissions during a warm-up period for not longer than 15 minutes to achieve operating temperatures in accordance with NAC 445.721 and SIP Article 4.3.5.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum electrical output for **S2.311.1** will not exceed **800 kilowatts** (equivalent to 8.34 MMBtu/hr).
- b. The maximum electrical output for each of \$2.311.2 through \$2.311.4 will not exceed 850 kilowatts (equivalent to 8.86 MMBtu/hr).
- c. Permittee will combust only diesel fuel, with a sulfur content of 0.05% (by weight) or less, in each of S2.311.1 through S2.311.4.
- d. The maximum fuel consumption rate for \$2.311.1 will not exceed 60.9 gallons of diesel fuel per any one-hour period.
- e. The maximum fuel consumption rate for **S2.311.2 through S2.311.4** will not exceed **64.7** gallons of diesel fuel per any one-hour period, each.
- f. S2.311.1 through S2.311.4, each or in combination with any other emission units identified in Section VII.B of this operating permit, may not operate in a manner which results in an exceedance of the emission limits contained in Section VII.B of this operating permit.

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

- CL. Emission Units S2.311.1 through S2.311.4 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - Periodic Compliance Testing
      - (1) Permittee will conduct and record the following periodic compliance tests on each of the exhaust stacks of **S2.311.1 through S2.311.4**. **The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition CL.4.a.(2) of this Section and not to exceed the maximum electrical output as established in CL.3 of this Section).
        - (i) Methods 2, 7E and 10 compliance tests for velocity/volumetric flow rate, NO<sub>x</sub>, and CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
        - (ii) Upon **S2.311.1 through S2.311.4** individually obtaining 500 hours of operation in a calendar year during the term of this operating permit, Permittee will, within 90 days of achieving the 500 hours of operation, conduct and record the following performance tests on each exhaust stack of **S2.311.1 through S2.311.4**.
          - (a) A Method 201A/202 performance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
          - (b) Method 2, 5 or 17 (with back-half catch), 6, and 25/25A compliance tests for velocity/volumetric flow rate, PM, SO<sub>2</sub>, and VOC in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
        - (iii) The Method 201A and 202 tests required in CL.4.a.(1)(ii) of this Section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests performed under this provision will be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in CL.2.a. of this Section.
        - (iv) The performance tests in CL.4.a.(1)(ii) of this Section will only be required once (if necessary) during the term of the operating permit, unless otherwise required by the Director as specified in (NAC 445B.252).
      - (2) Compliance tests required under CL.4.a.(1) of this Section that are conducted below the maximum allowable electrical output, as established in CL.3 of this Section, will be subject to the Director's review to determine if the electrical output during the compliance tests was sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
      - (3) In lieu of the testing required in CL.4.a.(1) of this Section, Permittee may provide any valid testing that was conducted on **S2.311.1 through S2.311.4** consistent with NAC 445B.252 and the test methods required in CL.4.a.(1) of this Section. The tests submitted pursuant to this allowance must have been performed within the last 200 operating hours upon review and approval by the Director.
      - Permittee will monitor and record the concentration of NO<sub>x</sub> and CO in each exhaust stack of **S2.311.1 through S2.311.4** with a portable NO<sub>x</sub>/CO exhaust-gas monitoring device. The portable gas analyzer will measure NO<sub>x</sub> and CO emissions for a period of not less than 1 hour for each exhaust stack. The periodic test will be conducted no less than once every 200 hours of backup operation for each of **S2.311.1 through S2.311.4** at the maximum electrical output (subject to Condition CL.4.a.(2) of this Section and not to exceed the maximum electrical output as established in CL.3 of this Section). The initial periodic test required under this section will be required to be conducted within 200 hours of operation from the initial testing conducted pursuant to CL.4.a.(3).
      - (5) Performance specifications and quality assurance procedures for the portable NO<sub>x</sub>/CO exhaust-gas monitoring device shall be contained in a monitoring plan that must be submitted to the Director prior to the first required periodic test.

### **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

#### CL. Emission Units S2.311.1 through S2.311.4 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- Maintain a daily record of the electrical output for each generator, in kilowatts, for each day or portion thereof that S2.311.1 through S2.311.4 operates.
- (2) Maintain a monthly record of the backup electrical output, in kilowatts, for each of \$2.311.1 through \$2.311.4.
- (3) Maintain a daily record of the hours of operation for each generator for each day or portion thereof that **S2.311.1 through S2.311.4** operates.
- (4) Monitor and record on a monthly basis the total hours of operation for each of **S2.311.1 through S2.311.4**. Indicate in the record the amount of operating hours under backup and emergency operating modes, each.
- (5) Monitor and record the concentration of NO<sub>x</sub> and CO emitted from each of **S2.311.1 through S2.311.4**, as provided under CL.4.a of this Section.
- (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from each of **S2.311.1 through S2.311.4**, at least **once every consecutive 12-month period**. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while the emission unit is operating and has the potential to create visible emissions, however, in accordance with CL.2.g and h, no assessment of visible emissions or visible emission test will be conducted during each engines' warm-up period. It will be noted in a contemporaneous log if the Method 9 visual emissions test could not be conducted due to the emission unit not operating or due to poor weather conditions.
- (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (8) The required monitoring established in (1) through (7) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **\$2.311.1** through **\$2.311.4** each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily hours of operation for the corresponding date.
  - (iii) The total daily output rate in kilowatt-hours for the corresponding date.
  - (iv) The corresponding average hourly electrical output, in kilowatts. The average electrical output will be determined from the daily electrical output and the total daily hours of operation recorded in (1) and (3) above.
  - (v) Results and verification of the **annual** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Shielded Requirements**

Compliance with conditions CL.1 through CL.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

CM. Emission Unit S2.312.1 Location North 4,536.1 km, East 554.5 km, UTM (Zone 11) Emission Unit S2.312.2 Location North 4,539.3 km, East 551.7 km, UTM (Zone 11)

#### CM. System 91 - Electric Power Generators

- S 2.312.1 Diesel-fueled engine electric generator #5 (Mill) (MP-608, Mill)
- S 2.312.2 Diesel-fueled engine electric generator #10 (Meikle) (KCG-002, Meikle)
  - 1. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*

Air Pollution Equipment

**S2.312.1 and S2.312.2** will each be operated in a manner that minimizes emissions.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Emission Limits** 

On and after the date of startup of **S2.312.1 and S2.312.2**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **S2.312.1 and S2.312.2**, the following pollutants in excess of the following specified limits, as monitored under CM.4.b.:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere from each of **S2.312.1** and **S2.312.2** will not exceed **4.1** pounds per hour. Permittee will not discharge annual emissions of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) in excess of the amount provided in Section VII.B of this operating permit.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere from each of **S2.312.1** and **S2.312.2** will not exceed **4.1** pounds per hour. Permittee will not discharge annual emissions of PM (particulate matter) in excess of the amount provided in Section VII.B of this operating permit.
- c. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere from each of **\$2.312.1** and **\$2.312.2** will not exceed **151.2** pounds per hour. Permittee will not discharge annual emissions of NO<sub>x</sub> (nitrogen oxides) in excess of the amount provided in Section VII.B of this operating permit.
- d. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere from each of S2.312.1 and S2.312.2 will not exceed 2.4 pounds per hour. Permittee will not discharge annual emissions of SO<sub>2</sub> (sulfur dioxide) in excess of the amount provided in Section VII.B of this operating permit.
- e. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere from each of **\$2.312.1** and **\$2.312.2** will not exceed **25.6** pounds per hour. Permittee will not discharge annual emissions of CO (carbon monoxide) in excess of the amount provided in Section VII.B of this operating permit.
- f. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere from each of **S2.312.1** and **S2.312.2** shall not exceed **4.1** pounds per hour. Permittee will not discharge annual emissions of VOC (volatile organic compounds) in excess of the amount provided in Section VII.B of this operating permit.
- g. NAC 445B.22017 and NAC 445B.2202 (State Only Requirement) The emissions from each of the exhaust stacks of S2.312.1 and S2.312.2, will not equal or exceed 20% opacity with the exception of the emissions during a warm-up period for not longer than 15 minutes to achieve operating temperatures in accordance with NAC 445B.22017 and NAC 445B.2202.
- h. NAC 445.721 and SIP Article 4.3.5 (Federally Enforceable SIP Requirements) The emissions from each of the exhaust stacks of **\$2.312.1** and **\$2.312.2** will not equal or exceed **20%** opacity with the exception of the emissions during a warm-up period for not longer than 15 minutes to achieve operating temperatures in accordance with NAC 445.721 and SIP Article 4.3.5.
- 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum electrical output for \$2.312.1 will not exceed 2000 kilowatts (equivalent to 19.68 MMBtu/hr).
- b. The maximum electrical output for S2.312.2 will not exceed 1900 kilowatts (equivalent to 18.70 MMBtu/hr).
- c. Permittee will combust only diesel fuel, with a sulfur content of 0.05% (by weight) or less, in each of \$2.312.1 and \$2.312.2.
- d. The maximum fuel consumption rate for \$2.312.1 will not exceed 143.6 gallons of diesel fuel per any one-hour period.
- e. The maximum fuel consumption rate for \$2.312.2 will not exceed 136.5 gallons of diesel fuel per any one-hour period.
- f. **S2.312.1 and S2.312.2**, each or in combination with any other emission units identified in Section VII.B of this operating permit, may not operate in a manner which results in an exceedance of the emission limits contained in Section VII.B of the operating permit.

## **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section VI. Specific Operating Conditions (continued)

CM. Emission Units S2.312.1 and S2.312.2 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. Periodic Compliance Testing
    - 1) Permittee will conduct and record the following periodic compliance tests on each of the exhaust stacks of **S2.312.1** and **S2.312.2**. The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests. The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition CM.4.a.(2) of this Section and not to exceed the maximum electrical output as established in CM.3 of this Section).
      - (i) Methods 2, 7E and 10 compliance tests for velocity/volumetric flow rate, NO<sub>x</sub>, and CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (ii) Upon **\$2.312.1** and **\$2.312.2** individually obtaining 500 hours of operation in a calendar year during the term of this operating permit, Permittee will, within 90 days of achieving the 500 hours of operation, conduct and record the following performance tests on each exhaust stack of **\$2.312.1** and **\$2.312.2**.
        - (a) A Method 201A/202 performance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
        - (b) Method 2, 5 or 17 (with back-half catch), 6, and 25/25A compliance tests for velocity/volumetric flow rate, PM, SO<sub>2</sub>, and VOC in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (iii) The Method 201A and 202 tests required in CM.4.a.(1)(ii) of this Section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests performed under this provision will be considered PM10 emissions for determination of compliance with the emission limitations established in CM.2.a. of this Section.
      - (iv) The performance tests in CM.4.a.(1)(ii) of this Section will only be required once (if necessary) during the term of the operating permit, unless otherwise required by the Director as specified in (NAC 445B.252).
    - (2) Compliance tests required under CM.4.a.(1) of this Section that are conducted below the maximum allowable electrical output, as established in CM.3 of this Section, will be subject to the Director's review to determine if the electrical output during the compliance tests was sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
    - (3) In lieu of the testing required in CM.4.a.(1) of this Section, Permittee may provide any valid testing that was conducted on **S2.312.1 and S2.312.2** consistent with NAC 445B.252 and the test methods required in CM.4.a.(1) of this Section. The tests submitted pursuant to this allowance must have been performed within the last 200 operating hours upon review and approval by the Director.
    - (4) Permittee will monitor and record the concentration of NO<sub>x</sub> and CO in each exhaust stack of **S2.312.1** and **S2.312.2** with a portable NO<sub>x</sub>/CO exhaust-gas monitoring device. The portable gas analyzer will measure NO<sub>x</sub> and CO emissions for a period of not less than 1 hour for each exhaust stack. The periodic test will be conducted no less than once every 200 hours of backup operation for each of **S2.312.1** and **S2.312.2** at the maximum electrical output (subject to Condition CM.4.a.(2) of this Section and not to exceed the maximum electrical output as established in CM.3 of this Section). The initial periodic test required under this section will be required to be conducted within 200 hours of operation from the initial testing conducted pursuant to CM.4.a.(3).
    - (5) Performance specifications and quality assurance procedures for the portable NO<sub>x</sub>/CO exhaust-gas monitoring device shall be contained in a monitoring plan that must be submitted to the Director prior to the first required periodic test.

## **BUREAU OF AIR POLLUTION CONTROL**

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### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

#### CM. Emission Units S2.312.1 and S2.312.2 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- Maintain a daily record of the electrical output for each generator, in kilowatts, for each day or portion thereof that S2.312.1 and S2.312.2 operates.
- (2) Maintain a monthly record of the backup electrical output, in kilowatts, for each of \$2.312.1 and \$2.312.2.
- (3) Maintain a daily record of the hours of operation for each generator for each day or portion thereof that **S2.312.1** and **S2.312.2** operates
- (4) Monitor and record on a monthly basis the total hours of operation for each of **S2.312.1** and **S2.312.2**. Indicate in the record the amount of operating hours under backup and emergency operating modes, each.
- (5) Monitor and record the concentration of NO<sub>x</sub> and CO emitted from each of **S2.312.1** and **S2.312.2**, as provided under CM.4.a of this Section.
- (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from each of **\$2.312.1** and **\$2.312.2**, at least **once every consecutive 12-month period**. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while the emission unit is operating and has the potential to create visible emissions, however, in accordance with CM.2.g and h, no assessment of visible emissions or visible emission test will be conducted during each engines' warm-up period. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to the emission unit not operating or due to poor weather conditions.
- (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (8) The required monitoring established in (1) through (7) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.312.1 through S2.312.2** each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily hours of operation for the corresponding date.
  - (iii) The total daily output rate in kilowatt-hours for the corresponding date.
  - (iv) The corresponding average hourly electrical output, in kilowatts. The average electrical output will be determined from the daily electrical output and the total daily hours of operation recorded in (1) and (3) above.
  - (v) Results and verification of the **annual** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions CM.1 through CM.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

CN. Emission Units S2.313.1 and S2.313.2 Location North 4,538.3 km, East 552.2 km, UTM (Zone 11) Location North 4,538.4 km, East 552.2 km, UTM (Zone 11) Emission Unit S2.313.4 Location North 4,538.1 km, East 552.1 km, UTM (Zone 11)

#### CN. System 92 - Electric Power Generators

- S 2.313.1 Diesel-fueled engine electric generator #6 (Roaster) (MP-610, Roaster)
- S 2.313.2 Diesel-fueled engine electric generator #7 (Roaster) (MP-705, Roaster)
- S 2.313.3 Diesel-fueled engine electric generator #8 (Roaster) (MP-706, Roaster)
- S 2.313.4 Diesel-fueled engine electric generator #9 (Rodeo) (MP-704, Rodeo)

#### 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

S2.313.1 through S2.313.4 will each be operated in a manner that minimizes emissions.

### 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

**Emission Limits** 

On and after the date of startup of **S2.313.1 through S2.313.4**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **S2.313.1 through S2.313.4**, the following pollutants in excess of the following specified limits, as monitored under CN.4.b.:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere from each of **S2.313.1 through S2.313.4** will not exceed **2.0** pounds per hour. Permittee will not discharge annual emissions of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) in excess of the amount provided in Section VII.B of this operating permit.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere from each of **\$2.313.1 through \$2.313.4** will not exceed **2.0** pounds per hour. Permittee will not discharge annual emissions of PM (particulate matter) in excess of the amount provided in Section VII.B of this operating permit.
- c. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere from each of **S2.313.1 through S2.313.4** will not exceed **73.6** pounds per hour. Permittee will not discharge annual emissions of NO<sub>x</sub> (nitrogen oxides) in excess of the amount provided in Section VII.B of this operating permit.
- d. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere from each of S2.313.1 through S2.313.4 will not exceed 1.1 pounds per hour. Permittee will not discharge annual emissions of SO<sub>2</sub> (sulfur dioxide) in excess of the amount provided in Section VII.B of this operating permit.
- e. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere from each of **S2.313.1 through S2.313.4** will not exceed **3.1** pounds per hour. Permittee will not discharge annual emissions of CO (carbon monoxide) in excess of the amount provided in Section VII.B of this operating permit.
- f. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere from each of S2.313.1 through S2.313.4 shall not exceed 2.0 pounds per hour. Permittee will not discharge annual emissions of VOC (volatile organic compounds) in excess of the amount provided in Section VII.B of this operating permit.
- g. NAC 445B.22017 and NAC 445B.2202 (State Only Requirement) The emissions from each of the exhaust stacks of **S2.313.1 through S2.313.4** will not equal or exceed **20%** opacity with the exception of the emissions during a warm-up period for not longer than 15 minutes to achieve operating temperatures in accordance with NAC 445B.22017 and NAC 445B.2202.
- h. NAC 445.721 and SIP Article 4.3.5 (Federally Enforceable SIP Requirement) The emissions from each of the exhaust stacks of **S2.313.1 through S2.313.4** will not equal or exceed **20%** opacity with the exception of the emissions during a warm-up period for not longer than 15 minutes to achieve operating temperatures in accordance with NAC 445.721 and SIP Article 4.3.5.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum electrical output for **S2.313.1** will not exceed **800 kilowatts** (equivalent to 9.25 MMBtu/hr).
- b. The maximum electrical output for each of \$2.313.2 and \$2.313.3 will not exceed 850 kilowatts (equivalent to 9.83 MMBtu/hr).
- c. The maximum electrical output for each of \$2.313.4 will not exceed 1000 kilowatts (equivalent to 11.56 MMBtu/hr).
- d. Permittee will combust only diesel fuel with a sulfur content of 0.05% (by weight) or less in each of S2.313.1 through S2.313.4.
- e. The maximum fuel consumption rate for \$2.313.1 will not exceed 67.5 gallons of diesel fuel per any one-hour period.
- f. The maximum fuel consumption rate for **S2.313.2** and **S2.313.3** will not exceed **71.8** gallons of diesel fuel per any one-hour period, each.
- g. The maximum fuel consumption rate for \$2.313.4 will not exceed 84.4 gallons of diesel fuel per any one-hour period.
- h. **S2.313.1 through S2.313.4**, each or in combination with any other emission units identified in Section VII.B of this operating permit, may not operate in a manner which results in an exceedance of the emission limits contained in Section VII.B of the operating permit.

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

- CN. Emission Units S2.313.1 through S2.313.4 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - Periodic Compliance Testing
      - (1) Permittee will conduct and record the following periodic compliance tests on each of the exhaust stacks of **\$2.313.1** through **\$2.313.4**. The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and **90** days between compliance tests. The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition CN.4.a.(2) of this Section and not to exceed the maximum electrical output as established in CN.3 of this Section).
        - (i) Methods 2, 7E and 10 compliance tests for velocity/volumetric flow rate, NO<sub>x</sub>, and CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
        - (ii) Upon S2.313.1 through S2.313.4 individually obtaining 500 hours of operation in a calendar year during the term of this operating permit, Permittee will, within 90 days of achieving the 500 hours of operation, conduct and record the following performance tests on each exhaust stack of S2.313.1 through S2.313.4.
          - (a) A Method 201A/202 performance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
          - (b) Method 2, 5 or 17 (with back-half catch), 6, and 25/25A compliance tests for velocity/volumetric flow rate, PM, SO<sub>2</sub>, and VOC in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
        - (iii) The Method 201A and 202 tests required in CN.4.a.(1)(ii) of this Section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests performed under this provision will be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in CN.2.a. of this Section.
        - (iv) The performance tests in CN.4.a.(1)(ii) of this Section will only be required once (if necessary) during the term of the operating permit, unless otherwise required by the Director as specified in (NAC 445B.252).
      - (2) Compliance tests required under CN.4.a.(1) of this Section that are conducted below the maximum allowable electrical output, as established in CN.3 of this Section, will be subject to the Director's review to determine if the electrical output during the compliance tests was sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
      - (3) In lieu of the testing required in CN.4.a.(1) of this Section, Permittee may provide any valid testing that was conducted on **S2.313.1 through S2.313.4** consistent with NAC 445B.252 and the test methods required in CN.4.a.(1) of this Section. The tests submitted pursuant to this allowance must have been performed within the last 200 operating hours upon review and approval by the Director.
      - Permittee will monitor and record the concentration of NO<sub>x</sub> and CO in each exhaust stack of **S2.313.1 through S2.313.4** with a portable NO<sub>x</sub>/CO exhaust-gas monitoring device. The portable gas analyzer will measure NO<sub>x</sub> and CO emissions for a period of not less than 1 hour for each exhaust stack. The periodic test will be conducted no less than once every 200 hours of backup operation for each of **S2.313.1 through S2.313.4** at the maximum electrical output (subject to Condition CN.4.a.(2) of this Section and not to exceed the maximum electrical output as established in CN.3 of this Section). The initial periodic test required under this section will be required to be conducted within 200 hours of operation from the initial testing conducted pursuant to CN.4.a.(3).
      - (5) Performance specifications and quality assurance procedures for the portable NO<sub>x</sub>/CO exhaust-gas monitoring device shall be contained in a monitoring plan that must be submitted to the Director prior to the first required periodic test.

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

#### CN. Emission Units S2.313.1 through S2.313.4 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- Maintain a daily record of the electrical output for each generator, in kilowatts, for each day or portion thereof that \$2.313.1 through \$2.313.4 operates.
- (2) Maintain a monthly record of the backup electrical output, in kilowatts, for each of \$2.313.1 through \$2.313.4.
- (3) Maintain a daily record of the hours of operation for each generator for each day or portion thereof that **S2.313.1 through S2.313.4** operates.
- (4) Monitor and record on a monthly basis the total hours of operation for each of **S2.313.1 through S2.313.4**. Indicate in the record the amount of operating hours under backup and emergency operating modes, each.
- (5) Monitor and record the concentration of NO<sub>x</sub> and CO emitted from each of S2.313.1 through S2.313.4, as provided under CN.4.a of this Section.
- (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from each of **S2.313.1 through S2.313.4**, at least **once every consecutive 12-month period**. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while the emission unit is operating and has the potential to create visible emissions, however, in accordance with CN.2.g and h, no assessment of visible emissions or visible emission test will be conducted during each engines' warm-up period. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to the emission unit not operating or due to poor weather conditions.
- (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (8) The required monitoring established in (1) through (7) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.313.1 through S2.313.4** each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily hours of operation for the corresponding date.
  - (iii) The total daily output rate in kilowatt-hours for the corresponding date.
  - (iv) The corresponding average hourly electrical output, in kilowatts. The average electrical output will be determined from the daily electrical output and the total daily hours of operation recorded in (1) and (3) above.
  - (v) Results and verification of the **annual** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions CN.1 through CN.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

CO. Emission Units S2.313.5 and S2.314.1 Removed from the permit as part of the renewal process.

CN. System 92 - Removed one Diesel-fueled engine generator

S 2.313.5 Diesel-fueled engine electric-generator #12 (Boulder Valley)

CO. System 93 - Removed

S 2.314.1 Diesel-fueled engine electric-generator #11 (Meikle)



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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

CP. Emission Units PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 Location North 4,539.6 km, East 552.0 km, UTM (Zone 11)

#### CP. System 95 - Backfill Crushing and Screening Plant

PF 1.400-.401 Jaw crusher pan feeders 1 and 2 (load)

PF 1.402-.403 Jaw crusher pan feeders 1 and 2 (discharge)

PF 1.404-.405 Jaw crushers 1 and 2

PF 1.406 Cone crusher 1 and transfer belts
PF 1.408-.409 Screens 1 & 2 and transfer belts
PF 1.411 Truck load-out surge bin (discharge)
PF 1.415-.416 Jaw Crusher outlet conveyors 1 and 2

PF 1.417-.425 Conveyor transfers

PF 1.433 Stacker conveyor transfer

PF 1.434 Conveyor transfer

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. PF1.400 through PF1.403 each will be operated in a manner that minimizes emissions.
- b. Emissions from PF1.404 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 each will be controlled by pneumatic water spray systems.

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Emission Limits</u>

- a. On and after the date of startup of **PF1.400** and **PF1.401**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.400** and **PF1.401**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.016 pound per hour total, nor exceed 0.024 tons per year total, based on a 12month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.046** pounds per hour total, nor exceed **0.069** tons per year total, based on a 12-month rolling period.
- b. On and after the date of startup of **PF1.402** and **PF1.403**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.402** and **PF1.403** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.016 pound per hour total, nor exceed 0.024 ton per year total, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.046** pound per hour total, nor exceed **0.069** ton per year total, based on a 12-month rolling period.
- c. On and after the date of startup of PF1.404 and PF1.405, Permittee will not discharge or cause the discharge into the atmosphere from PF1.404 and PF1.405 the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.120 pound per hour total, nor exceed 0.180 ton per year total, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.270** pound per hour total, nor exceed **0.405** ton per year total, based on a 12-month rolling period.
- d. On and after the date of startup of PF1.406, Permittee will not discharge or cause the discharge into the atmosphere from PF1.406 the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.120 pound per hour, nor exceed 0.180 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.270** pound per hour, nor exceed **0.405** ton per year, based on a 12-month rolling period.
- e. On and after the date of startup of **PF1.408** and **PF1.409**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.408** and **PF1.409** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.435 pound per hour combined, nor exceed 0.653 ton per year combined, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **1.250** pounds per hour combined, nor exceed **1.875** tons per year combined, based on a 12-month rolling period.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- CP. Emission Units PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 (continued)
  - NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Emission Limits
    - f. On and after the date of startup of **PF1.411**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.411** the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.055 pound per hour, nor exceed 0.083 ton per year, based on a 12-month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.150** pound per hour, nor exceed **0.225** ton per year, based on a 12-month rolling period.
    - g. On and after the date of startup of **PF1.415** and **PF1.416**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.415** and **PF1.416** the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.055 pound per hour total, nor exceed 0.083 ton per year total, based on a 12month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.150** pound per hour total, nor exceed **0.225** ton per year total, based on a 12-month rolling period.
    - h. On and after the date of startup of **PF1.417 through PF1.425**, **PF1.433**, **and PF1.434**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.417 through PF1.425**, **PF1.433**, **and PF1.434** the following pollutants in excess of the following specified limits:
      - NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.055 pound per hour each, nor exceed 0.083 ton per year each, based on a 12month rolling period.
      - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.150** pound per hour, each, nor exceed **0.225** ton per year, each, based on a 12-month rolling period.
    - NAC 445B.22017 (State Only Requirement) The opacity from PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 each will not equal or exceed 20% in accordance with NAC 445B.22017.
    - j. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 each will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
    - k. New Source Performance Standards (NSPS) Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
      - On and after the sixtleth day after achieving the maximum production rate at which **PF1.402** and **PF1.403**, and **PF1.408** through **PF1.425**, and **PF1.434** each will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
      - (1) Fugitive emissions from **PF1.402** and **PF1.403**, and **PF1.408** through **PF1.425**, and **PF1.434** each, will not exceed 10 percent opacity. (40 CFR Part 60.672(b))
      - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction (40 CFR Part 60.11(c)).
      - At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.402** and **PF1.403**, and **PF1.408** through **PF1.425**, and **PF1.434** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
    - I. New Source Performance Standards (NSPS) Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
      - On and after the sixtieth day after achieving the maximum production rate at which **PF1.404** through **PF1.406** each will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
      - (1) Fugitive emissions from **PF1.404 through PF1.406** each will not exceed 15 percent opacity. (40 CFR Part 60.672(c))
      - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
      - At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.404 through PF1.406** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- CP. Emission Units PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 (continued)
  - 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    Operating Parameters
    - a. The maximum allowable throughput rate for **PF1.400** and **PF1.401** will not exceed **1,000** tons of aggregate per any one-hour period, total, nor more than **3,000,000** tons of aggregate per year, total, based on a 12-month rolling period.
    - b. The maximum allowable throughput rate for **PF1.402** and **PF1.403** will not exceed **1,000** tons of aggregate per any one-hour period, total, nor more than **3,000,000** tons of aggregate per year, total, based on a 12-month rolling period.
    - c. The maximum allowable throughput rate for **PF1.404** and **PF1.405** will not exceed **1,000** tons of aggregate per any one-hour period, total, nor more than **3,000,000** tons of aggregate per year, total, based on a 12-month rolling period.
    - d. The maximum allowable throughput rate for **PF1.406** will not exceed **1,000** tons of aggregate per any one-hour period, nor more than **3,000,000** tons of aggregate per year, based on a 12-month rolling period.
    - e. The maximum allowable throughput rate for **PF1.408** and **PF1.409** will not exceed **1,000** tons of aggregate per any one-hour period, total, nor more than **3,000,000** tons of aggregate per year, total, based on a 12-month rolling period.
    - f. The maximum allowable throughput rate for **PF1.411** will not exceed **1,000** tons of aggregate per any one-hour period, nor more than **3,000,000** tons of aggregate per year, based on a 12-month rolling period.
    - g. The maximum allowable throughput rate for **PF1.415** and **PF1.416** will not exceed **1,000** tons of aggregate per any one-hour period, total, nor more than **3,000,000** tons of aggregate per year, total, based on a 12-month rolling period.
    - h. The maximum allowable throughput rate for **PF1.417 through PF1.425**, **PF1.433**, **and PF1.434** will not exceed **1,000** tons of aggregate per any one-hour period, each, nor more than **3,000,000** tons of aggregate per year, each, based on a 12-month rolling period.
    - i. PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 each will process only nonmetallic minerals.
    - j. PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 may operate 8,760 hours per year, each.

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- CP. Emission Units PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - Monitoring, Recordkeeping, Reporting and Compliance
       On and after the date of initial startup, Permittee will:
      - (1) Monitor and record the throughput of aggregate of PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
      - (2) Monitor and record the hours of operation of PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 on a daily basis.
      - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.401, and PF1.433 on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test of the visible emissions (excluding water vapor) from PF1.402 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, and PF1.434 on a monthly basis. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visible emissions assessment or Method 9 visible emissions test could not be conducted due to PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 not operating or due to poor weather conditions.
      - (4) Inspect the pneumatic water spray systems on PF1.404 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 once during each day of operation to verify that they are operating as designed. Record the inspection results and any corrective actions taken.
      - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this operating permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (6) The hourly throughput rate in tons per hour for PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 will be determined from the total daily throughput and the total daily hours of operation recorded above.
      - (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that PF1.400 through PF1.406, PF1.408, PF1.409, PF1.411, PF1.415 through PF1.425, PF1.433, and PF1.434 each, are operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total daily throughput rate of aggregate, in tons, for the corresponding date.
        - (iii) The total daily hours of operation for the corresponding date.
        - (iv) The corresponding average hourly throughput rate of aggregate, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
        - (v) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
    - New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
       Permittee, upon the issuance date of this permit, shall:
      - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
  - 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Shielded Requirements** 

Compliance with conditions CP.1 through CP.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements:



### **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

**CQ.** System 96 - Removed from the permit as part of the renewal process.

CQ. System 96 – Shotcrete Plant with Aggregate Dryer		
PF	1.437	Bins #1 and #2 (loading)
PF	1.438	Bins #1 and #2 (discharge)
PF	1.439	Feeders (discharge)
PF	1.440	Feeder belt (discharge)
S	2.400.1	Dryer
S	2.400.2	Blending screen
S	2.400.3	Bucket elevator
S	2.400.4400.6	Load-out silos #1, #2, and #3 (loading)
PF	1.447	Scale belt (discharge)
S	2.401.1401.2	Cement/fly ash silos #1 and #2 (loading)
PF	1.450451	Cement/fly ash silos #1 and #2 (discharge)
PF	1.452453	Augers #1 and #2 (discharge)
PF	1.454456	Load-out silos #1, #2, and #3 (discharge to trucks)

## **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

CR. Emission Units PF1.457 through PF1.464 Location North 4,536.2 km, East 554.7 km, UTM (Zone 11)

## CR. System 97 - Intermediate Crushing System (Mill #1)

PF 1.457.1 Feed hopper and feeder (load)

PF 1.457.2 Feed hopper and feeder (discharge)

PF 1.458 Conveyor transfer

PF 1.459 Double deck screen

PF 1.460 Double deck screen under conveyor transfer

PF 1.461 Conveyor transfer

PF 1.462 Conveyor transfer

PF 1.463 Cone crusher

PF 1.464 Stacker conveyor

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Air Pollution Equipment

- a. Emissions from PF1.457.1 and PF1.459 each will be controlled by pneumatic water sprays.
- b. Emissions from **PF1.464** will be controlled by pneumatic water sprays.
- Emissions from PF1.457.2, PF1.458 and PF1.460 through PF1.463 each will be controlled by enclosures.

### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- On and after the date of startup of PF1.457.1, Permittee will not discharge or cause the discharge into the atmosphere from PF1.457.1, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.024** pound per hour, nor exceed **0.103** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.067** pound per hour, nor exceed **0.295** ton per year, based on a 12-month rolling period.
- b. On and after the date of startup of **PF1.457.2**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.457.2**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.044** pound per hour, nor exceed **0.194** ton per year, based on a 12-month rolling period
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.127** pound per hour, nor exceed **0.556** ton per year, based on a 12-month rolling period.
- c. On and after the date of startup of **PF1.458**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.458**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.044 pound per hour, nor exceed 0.194 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.127** pound per hour, nor exceed **0.556** ton per year, based on a 12-month rolling period.
- d. On and after the date of startup of **PF1.459**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.459**, the following pollutants in excess of the following specified limits:
  - (1) NAČ 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.420** pound per hour, nor exceed **1.840** tons per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.882** pound per hour, nor exceed **3.863** tons per year, based on a 12-month rolling period.
- e. On and after the date of startup of **PF1.460**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.460**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.044** pound per hour, nor exceed **0.194** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.127** pound per hour, nor exceed **0.556** ton per year, based on a 12-month rolling period.

## **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

#### CR. Emission Units PF1.457 through PF1.464 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits

- f. On and after the date of startup of **PF1.461**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.461**, the following pollutants in excess of the following specified limits:
  - (1) NAČ 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.044** pound per hour, nor exceed **0.194** ton per year, based on a 12-month rolling period
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.127** pound per hour, nor exceed **0.556** ton per year, based on a 12-month rolling period.
- g. On and after the date of startup of PF1.462, Permittee will not discharge or cause the discharge into the atmosphere from PF1.462, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.044 pound per hour, nor exceed 0.194 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.127** pound per hour, nor exceed **0.556** ton per year, based on a 12-month rolling period.
- h. On and after the date of startup of **PF1.463**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.463**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.295 pound per hour, nor exceed 1.292 tons per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.620** pound per hour, nor exceed **2.713** tons per year, based on a 12-month rolling period.
- On and after the date of startup of **PF1.464**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.464**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.024** pound per hour, nor exceed **0.103** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.067** pound per hour, nor exceed **0.295** ton per year, based on a 12-month rolling period.
- NAC 445B.22017 (State Only Requirement) The opacity from PF1.457 through PF1.464 each will not equal or exceed 20% in accordance with NAC 445B.22017.
- k. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.457 through PF1.464** each shall not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any one hour.
- I. New Source Performance Standards (NSPS) Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)
  - On and after the sixtieth day after achieving the maximum production rate at which **PF1.457 through PF1.463** each, will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
  - (1) Process fugitive emissions from PF1.457 through PF1.463 each, will not exceed 10 percent opacity. (40 CFR Part 60.382(b))
  - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
  - At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.457 through PF1.463** each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Operating Parameters

- a. The maximum allowable throughput for **PF1.457 through PF1.464** will not exceed **500.0** tons of ore per any one-hour period, each, nor more than **4,380,000** tons of ore per year, each, based on a 12-month rolling period.
- b. PF1.457 through PF1.464 may operate 8,760 hours per year, each.

### **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

#### CR. Emission Units PF1.457 through PF1.464 (continued)

- . NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the throughput of **PF1.457 through PF1.464** on a daily basis.
- (2) Monitor and record the hours of operation of PF1.457 through PF1.464 on a daily basis.
- Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.464** on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test of the visible emissions (excluding water vapor) from **PF1.457 through PF1.463** on a **monthly basis**. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.457 through PF1.464** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visible emissions assessment or Method 9 visible emissions test could not be conducted due to **PF1.457 through PF1.464** not operating or due to poor weather conditions.
- (4) Inspect the pneumatic water sprays systems on **PF1.457.1**, **PF1.459** and **PF1.464** once during each day of operation to verify they are operating as designed. Record the inspection results and any corrective actions taken.
- (5) Inspect the enclosures on **PF1.457.2**, **PF1.458** and **PF1.460** through **PF1.463** on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
- (6) Maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **PF1.457**

#### through PF1.464 each, are operating.

- (i) The calendar date of any required monitoring.
- (ii) The total daily throughput of ore for the corresponding date.
- (iii) The total daily hours of operation for the corresponding date.
- (iv) The corresponding average throughput rate in tons per hour. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation recorded in (1) and (2) above.
- (v) The monthly throughput rate in tons per calendar month, and the corresponding annual throughput rate in tons per 12-month rolling period. The monthly throughput rate will be determined at the end of each calendar month as the sum of each total daily throughput rate as determined in (ii) above for each day of the calendar month. The annual throughput rate will be determined at the end of each calendar month as the sum of the monthly throughput rates for the 12 immediately preceding calendar months.
- (vi) Records and results of the daily pneumatic water sprays inspection for **PF1.457.1**, **PF1.459** and **PF1.464**, and any corrective actions taken.
- (vii) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b))
   Permittee, upon the issuance date of this permit, shall:
  - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Shielded Requirements**

Compliance with conditions CR.1 through CR.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### NAC Requirements:

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

CS. Emission Unit S2.084 Location North 4,536.3 km, East 554.9 km, UTM (Zone 11)

#### CS. System 98 - Indoor Air Dust Removal System

S 2.084 Dust Removal System

1. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* 

Air Pollution Equipment

Emissions from **\$2.084** will be ducted to a control system consisting of a wet scrubber **(W\$-205)** with a maximum volume flow rate of 15,000 dry standard cubic feet per minute (dscfm). **W\$-205** will be operated in accordance with the manufacturer's recommendations at all times during operation of **\$2.084**, including startup and shutdown. The capture efficiency of the control system will be 100% such that all process emissions from **\$2.084** will be captured and ducted to **W\$-205**.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits

- a. On and after the date of startup of **S2.084**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **WS-205**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **1.93** pounds per hour.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **1.93** pounds per hour.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stack of WS-205 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stack of **WS-205** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program Operating Parameters</u>
   \$2.084 may operate 8,760 hours per year.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

#### CS. Emission Unit S2.084 (continued)

. NAC 445B.3405 (NAC 445B.316) Part 70 Program

a. Monitoring, Recordkeeping, Reporting and Compliance

Within 60 days after achieving the maximum flow rate at which **S2.084** will be operated, but no later than 180 days after initial startup of the facility, Permittee shall determine compliance with the particulate matter and PM<sub>10</sub> emission limits established in Section V for **S2.084** by conducting performance tests on the **inlet of the wet scrubber (WS-205)** and on the **exhaust stack of WS-205** as follows:

- Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine the particulate matter concentration. The sample volume for each test run shall be at least 1.70 dscm (60 dscf). The sampling probe and filter holder of Method 5 may be operated without heaters if the gas stream being sampled is at ambient temperature. For gas streams above ambient temperature, the Method 5 sampling train shall be operated with a probe and filter temperature slightly above the effluent temperature (up to a maximum filter temperature of 121°C (250°F)) in order to prevent water condensation on the filter.
- (2) A Method 201A test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the director for PM<sub>10</sub>.
- (3) The Method 201A test required in this section may be replaced by a Method 5 test. All particulate captured in the Method 5 tests performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in Section V for **S2.084**.
- (4) For the purposes of demonstrating initial compliance with the opacity standard established in Section V for **\$2.084**, opacity observations shall be conducted in accordance with Reference Method 9 in Appendix A of 40 CFR Part 60. Opacity observations shall be conducted within 60 days after achieving the maximum flow rate at which **\$2.084** will be operated, but no later than 180 days after initial startup of the facility. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15-second intervals).
- (5) Performance tests and opacity observations required under this section that are conducted below the maximum allowable flow rate shall be subject to the director's review to determine if the flow rate during the performance tests were sufficient to provide adequate compliance demonstration. Should the director determine that the performance tests do not provide adequate compliance demonstration, the director may require additional performance testing.

b. Periodic Compliance Testing

- 1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of WS-205. The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests. The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable flow rate. The sample volume for each test run shall be at least 1.70 dscm (60 dscf).
  - A Method 201A compliance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
  - (ii) A Method 5 or 17 compliance test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM.
- (2) Permittee may substitute the Method 5 or 17 tests with the Method 201A test.
- (3) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of **WS-205** in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
- (4) The compliance tests required under 4.b.(1) of this Section will be conducted within 60 days of an alteration or modification. Replacement of equipment with the same type of equipment as part of routine maintenance does not constitute an alteration or modification for the purposes of this requirement, provided that the operating parameters are not altered or modified.

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

### CS. Emission Unit S2.084 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - c. Monitoring and Recordkeeping
    - (1) Monitor and record the hours of operation of **\$2.084** on a daily basis.
    - (2) Install, calibrate, operate and maintain devices for the measurement of the pressure drop and water flow rate through wet scrubber (WS-205).
    - 3) Continuously monitor and record the pressure drop and water flow rate through wet scrubber (WS-205). Record any monitored occurrences when the pressure drop and water flow rate falls outside the specified operating range and record any corrective actions taken.
    - (4) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of WS-205 on a weekly basis. If the visible emission survey detects any visible emissions, the Permittee, will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while S2.084 is operating. If S2.084 is shut down for inspection, maintenance, or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to S2.084 not operating or due to poor weather conditions.
    - (5) Maintain records of the specified operating range for the wet scrubber (WS-205) on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
    - (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Shielded Requirements

Compliance with conditions CS.1 through CS.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

CT. Emission Units S2.085, PF1.465, and PF1.466 Location North 4,536.5 km, East 552.9 km, UTM (Zone 11)

#### CT. System 99A - Portable Batch Plant A

S 2.085 Cement Silo/Guppy #1 Loading

PF 1.465 Cement Silo/Guppy #1 transfer to Silo/Guppy #1 Conveyor

PF 1.466 Silo/Guppy #1 Conveyor Discharge

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from \$2.085 will be ducted to a vent filter with 100% capture.
- Emissions from PF1.465 and PF1.466 will be controlled by best operating practices.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **S2.085**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.085**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.03** pound per hour nor exceed **0.01** ton per year based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.08** pound per hour nor exceed **0.03** ton per year based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust vent of **S2.085** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - 4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vent of **S2.085** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.465** and **PF1.466**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.465** and **PF1.466**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.05 pound per hour, each, nor exceed 0.07 ton per year, each, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.10** pound per hour, each, nor exceed **0.15** ton per year, each, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.465** and **PF1.466**, each, will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.465** and **PF1.466**, each, will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable loading rate for **\$2.085** will not exceed **80.0** tons of cement/fly ash/shotcrete per any one-hour period, nor more than **60,000** tons of cement/fly ash/shotcrete per year, based on a 12-month rolling period.
- b. The maximum allowable throughput rate for **PF1.465** and **PF1.466**, each, will not exceed **20.0** tons of cement/fly ash/shotcrete per any one-hour period, nor more than **60,000** tons of cement/fly ash/shotcrete per year, based on a 12-month rolling period.
- c. **S2.085**, **PF1.465**, and **PF1.466** may operate **8,760** hours per year, each.
- d. **System 99A** is portable within the confines of the Permitee's property.

### **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- CT. Emission Units S2.085, PF1.465, and PF1.466 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
    - Monitoring, Recordkeeping, Reporting and Compliance
       On and after the date of initial startup, Permittee will:
      - (1) Monitor and record the amount of cement/fly ash/shotcrete loaded into **S2.085** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly cement/fly ash/shotcrete throughput and the total cement/fly ash/shotcrete throughput for the previous 12 months.
      - (2) Monitor and record the amount of cement/fly ash/shotcrete discharged from **PF1.465** and **PF1.466**, each, on a monthly basis. The amount of cement/fly ash/shotcrete will be based on purchasing receipts and measurements of the level of cement/fly ash/shotcrete in the silo at the beginning and end of the month. At the end of each calendar month, record the total cement/fly ash/shotcrete throughput for the previous 12 months.
      - (3) Conduct and record an inspection of the vent filter on **S2.085** on a quarterly basis noting the condition of the filter material and housing. Record any corrective actions taken.
      - (4) Monitor and record the hours of operation of **PF1.465** and **PF1.466**, each, on a monthly basis.
      - (5) Install, calibrate, operate and maintain a device for the measurement of the level of cement/fly ash/shotcrete in the silos.
      - (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.085 and from PF1.465** and **PF1.466**, each, on a weekly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.085**, **PF1.465**, **and PF1.466**, each, is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.085**, **PF1.465**, **and PF1.466**, each, not operating or due to poor weather conditions.
      - (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
      - (8) The hourly loading rate in tons per hour for **\$2.085** will be determined from the total daily throughput and the total daily hours of operation recorded above.
      - (9) The hourly throughput rate in tons per hour for **PF1.465** and **PF1.466**, each, will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
      - (10) The required monitoring established in (1) through (9) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.085**, **PF1.465**, and **PF1.466**, each, is operating:
        - (i) The calendar date of any required monitoring.
        - (ii) The total daily and monthly throughput rate of cement/fly ash/shotcrete, in tons, for the corresponding date.
        - (iii) The total daily and monthly hours of operation for the corresponding date.
        - (iv) The corresponding average hourly throughput rate of cement/fly ash/shotcrete, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in (1), (2), and (4) above.
        - (v) Results and condition of the quarterly inspection of the vent filter on \$2.085 and any corrective actions taken.
        - (vi) Results and verification of the weekly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
  - 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions CT.1 through CT.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

CU. Emission Units S2.086, PF1.467, and PF1.468 Location North 4,536.5 km, East 552.9 km, UTM (Zone 11)

#### CU. System 99B - Portable Batch Plant B

S 2.086 Cement Silo/Guppy #2 Loading

PF 1.467 Cement Silo/Guppy #2 transfer to Silo/Guppy #2 Conveyor

PF 1.468 Silo/Guppy #2 Conveyor Discharge

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from **\$2.086** will be ducted to a vent filter with 100% capture.
- Emissions from PF1.467 and PF1.468 will be controlled by best operating practices.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **S2.086**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.086**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.03** pound per hour nor exceed **0.01** ton per year based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.08** pound per hour nor exceed **0.03** ton per year based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust vent of **S2.086** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vent of **S2.086** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.467** and **PF1.468**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.467** and **PF1.468**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.05 pound per hour, each, nor exceed 0.07 ton per year, each, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.10** pound per hour, each, nor exceed **0.15** ton per year, each, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.467 and PF1.468**, each, will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.467** and **PF1.468**, each, will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable loading rate for **\$2.086** will not exceed **80.0** tons of cement/fly ash/shotcrete per any one-hour period, nor more than **60,000** tons of cement/fly ash/shotcrete per year, based on a 12-month rolling period.
- b. The maximum allowable throughput rate for **PF1.467** and **PF1.468**, each, will not exceed **20.0** tons of cement/fly ash/shotcrete per any one-hour period, nor more than **60,000** tons of cement/fly ash/shotcrete per year, based on a 12-month rolling period.
- c. **S2.086**, **PF1.467**, and **PF1.468** may operate **8,760** hours per year, each.
- d. System 99B is portable within the confines of the Permitee's property.

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

#### CU. Emission Units S2.086, PF1.467, and PF1.468 (continued)

- . NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring, Recordkeeping, Reporting and Compliance
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of cement/fly ash/shotcrete loaded into **S2.086** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly cement/fly ash/shotcrete throughput and the total cement/fly ash/shotcrete throughput for the previous 12 months.
    - (2) Monitor and record the amount of cement/fly ash/shotcrete discharged from **PF1.467** and **PF1.468**, each, on a monthly basis. The amount of cement/fly ash/shotcrete will be based on purchasing receipts and measurements of the level of cement/fly ash/shotcrete in the silo at the beginning and end of the month. At the end of each calendar month, record the total cement/fly ash/shotcrete throughput for the previous 12 months.
    - (3) Conduct and record an inspection of the vent filter on **S2.086** on a quarterly basis noting the condition of the filter material and housing. Record any corrective actions taken.
    - (4) Monitor and record the hours of operation of PF1.467 and PF1.468, each, on a monthly basis.
    - (5) Install, calibrate, operate and maintain a device for the measurement of the level of cement/fly ash/shotcrete in the silos.
    - (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.086 and from PF1.467 and PF1.468**, each, on a weekly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.086, PF1.467, and PF1.468**, each, is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.086, PF1.467, and PF1.468**, each, not operating or due to poor weather conditions.
    - (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (8) The hourly loading rate in tons per hour for **\$2.086** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (9) The hourly throughput rate in tons per hour for **PF1.467** and **PF1.468**, each, will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
    - (10) The required monitoring established in (1) through (9) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.086**, **PF1.467**, and **PF1.468**, each, is operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily and monthly throughput rate of cement/fly ash/shotcrete, in tons, for the corresponding date.
      - (iii) The total daily and monthly hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of cement/fly ash/shotcrete, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in (1), (2), and (4) above.
      - (v) Results and condition of the quarterly inspection of the vent filter on S2.086 and any corrective actions taken.
      - (vi) Results and verification of the weekly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions CU.1 through CU.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

CV. Emission Units PF1.469 and PF1.470 Location North 4,536.5 km, East 552.9 km, UTM (Zone 11)

#### CV. System 99C - Portable Batch Plant C

PF 1.469 Bin Loading

PF 1.470 Bin transfer to Bin Conveyor

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from **PF1.469** will be controlled by best operating practices.
- b. Emissions from **PF1.470** will be controlled by an enclosure.

### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of PF1.469, Permittee will not discharge or cause the discharge into the atmosphere from PF1.469 the following pollutants in excess of the following specified limits:
  - 1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.99** pound per hour, nor more than **1.49** tons per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **2.07** pounds per hour, nor more than **3.11** tons per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.469** will not equal or exceed **20 percent** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.469** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.470**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.470** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.50 pound per hour, nor more than 0.74 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **1.04** pounds per hour, nor more than **1.55** tons per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.470 will not equal or exceed 20 percent in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.470** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- c. New Source Performance Standards (NSPS) Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)
  - On and after the sixtieth day after achieving the maximum production rate at which **PF1.470** will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
  - (1) Fugitive emissions from **PF1.470** will not exceed **10 percent** opacity. (40 CFR Part 60.672(b))
  - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction (40 CFR Part 60.11(c)).
  - At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.470** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

#### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. The maximum allowable loading rate for **PF1.469** and **PF1.470**, each, will not exceed **300.0** tons of sand or aggregate per any one-hour period, nor more than **900,000** tons of sand or aggregate per year, based on a 12-month rolling period.
- b. **PF1.469 and PF1.470** may operate **8,760** hours per year, each.
- System 99C is portable within the confines of the Permitee's property.

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- CV. Emission Units PF1.469 and PF1.470 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>

    Monitoring, Recordkeeping, Reporting and Compliance
    - a. For the purposes of demonstrating initial compliance with the emissions limitations established in Section VI for **PF1.470**, opacity observations shall be conducted using Method 9 in Appendix A of 40 CFR Part 60 and the procedures in 40 CFR Parts 60.11 and 60.675, which include the following:
      - (1) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
      - (2) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position related to the sun (Method 9, Section 2.1) must be followed.
      - (3) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
    - b. Opacity observations shall be conducted within 60 days after achieving the maximum production rate at which **PF1.470** will be operated, but no later than 180 days after initial startup of **PF1.470**. The minimum total time of observations shall be 3 hours (30 6-minute averages). The observer shall read opacity only when emissions are clearly emanating solely from the affected facility being observed (40 CFR Part 60.11(b), 60.11(e)(1)). The duration of the Method 9 observations may be reduced from 3-hours (30 6-minute averages) to 1-hour (10 6-minute averages) only if the following conditions apply (40 CFR Part 60.675):
      - (1) There are no individual readings greater than 10 percent opacity; and
      - (2) There are no more than 3 readings of 10 percent for the 1-hour period.

If emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

- (1) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.
- (2) Separate the emissions so that the opacity of emissions from each affected facility can be read.
- c. Permittee shall provide notification of the anticipated date for conducting the opacity observations required in Section VI. The notification shall be postmarked not less than 30 days prior to such date. (40 CFR Part 60.7(a)(6))
- d. Within 60 days after completing the opacity observations contained in Section VI, Permittee shall furnish the director a written report of the results of the opacity observations required in Section VI (40 CFR Part 60.8(a)). All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3497, inclusive. (NAC 445B.252.8)
- e. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the throughput of PF1.469 and PF1.470, each, on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
- (2) Monitor and record the hours of operation of PF1.469 and PF1.470, each, on a daily basis.
- Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.469** and **PF1.470**, each, on a weekly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.469** and **PF1.470**, each, is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.469** and **PF1.470**, each, not operating or due to poor weather conditions.
- (4) Inspect the enclosure on PF1.470 on a monthly basis and record the inspection results and any corrective actions taken.
- Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (6) The hourly throughput rate in tons per hour for **PF1.469 and PF1.470**, each, will be determined from the total daily throughput and the total daily hours of operation recorded above.
- (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.469 and PF1.470**, each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily throughput rate of sand or aggregate, in tons, for the corresponding date.
  - (iii) The total daily hours of operation for the corresponding date.
  - The corresponding average hourly throughput rate of sand or aggregate, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
  - (v) Results and verification of the weekly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

- CV. Emission Units PF1.469 and PF1.470 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>

    Monitoring, Recordkeeping, Reporting and Compliance
    - f. New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b)) Permittee, upon the issuance date of this permit, shall:
      - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
  - NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Shielded Requirements

Compliance with conditions CV.1 through CV.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

CW. Emission Units PF1.472 through PF1.474 (Removed from the permit on March 30, 2007)

CW. System 99D - Portable Batch Plant D (Removed)

PF 1.472 Sand Bin Loading

PF 1.473 Sand Bin transfer to Sand Bin Conveyor

PF 1.474 Sand Bin Conveyor Discharge

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

CX. Emission Unit PF1.475 (Removed from the permit on March 30, 2007)

CX. System 99E – Portable Batch Plant E

### **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

CY. Emission Unit PF1.476 Location North 4,536.5 km, East 552.9 km, UTM (Zone 11)

#### CY. System 99F - Portable Batch Plant F

PF 1.476 Central Mixer Loading

1. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* 

Air Pollution Equipment

Emissions from PF1.476 will be controlled by an enclosure

NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Emission Limits

On and after the date of startup of **PF1.476**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.476**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.10** pound per hour, nor exceed **0.14** ton per year, based on a 12-month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.35** pound per hour, nor exceed **0.52** ton per year, based on a 12-month rolling period.
- c. NAC 445B.22017 (State Only Requirement) The opacity from PF1.476 will not equal or exceed 20% in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from PF1.476 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

- a. The maximum allowable loading rate for **PF1.476** will not exceed **380.0** tons of sand/aggregate/cement/fly ash/shotcrete per any one-hour period, nor more than **1,140,000** tons of sand/aggregate/cement/fly ash/shotcrete per year, based on a 12-month rolling period.
- b. **PF1.476** may operate **8,760** hours per year.
- System 99F is portable within the confines of the Permitee's property.

## **BUREAU OF AIR POLLUTION CONTROL**

## Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

### CY. Emission Unit PF1.476 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring, Recordkeeping, Reporting and Compliance
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of **PF1.476** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.476** on a daily basis.
    - Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.476 on a weekly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.476 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.476 not operating or due to poor weather conditions.
    - (4) Conduct an inspection of the enclosure on **PF1.476** on a **monthly basis** and record the inspection results and any corrective action taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly throughput rate in tons per hour for **PF1.476** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (7) The required monitoring established in (1) through (6) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.476** is operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily throughput rate of sand/aggregate/cement/fly ash/shotcrete, in tons, for the corresponding date.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of sand/aggregate/cement/fly ash/shotcrete, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
      - (v) Results and verification of the weekly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Shielded Requirements

Compliance with conditions CY.1 through CY.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

#### NAC Requirements:

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

## Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

CZ. Emission Units S2.087, PF1.477, and PF1.478 Location North 4,539.3 km, East 552.0 km, UTM (Zone 11)

### CZ. System 100 - Meikle Backfill/Cement Feed Plant Silo #3

S 2.087 Silo #3 Loading

PF 1.477 Silo #3 transfer to Silo #3 Conveyor
PF 1.478 Silo #3 Conveyor Discharge

### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Air Pollution Equipment

- a. Emissions from **\$2.087** will be ducted to a vent filter with 100% capture.
- Emissions from PF1.477 and PF1.478 will be controlled by best operating practices.

### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **S2.087**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.087**, the following pollutants in excess of the following specified limits:
  - NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.03 pound per hour, nor exceed 0.01 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.08** pound per hour, nor exceed **0.03** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust vent of **S2.087** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vent of **S2.087** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.477** and **PF1.478**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.477** and **PF1.478**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.19 pound per hour, each, nor exceed 0.08 ton per year, each, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.41** pound per hour, each, nor exceed **0.17** ton per year, each, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.477 and PF1.478, each, will not equal or exceed 20 percent in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from PF1.477 and PF1.478, each, will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Operating Parameters

- a. The maximum allowable loading rate for **\$2.087** will not exceed **80.0** tons of cement/fly ash/shotcrete per any one-hour period, nor more than **65,000** tons of cement/fly ash/shotcrete per year, based on a 12-month rolling period.
- b. The maximum allowable throughput rate for **PF1.477** and **PF1.478**, each, will not exceed **80.0** tons of cement/fly ash/shotcrete per any one-hour period, nor more than **65,000** tons of cement/fly ash/shotcrete per year, based on a 12-month rolling period.
- c. **S2.087**, **PF1.477**, and **PF1.478** may operate **8,760** hours per year, each.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

### CZ. Emission Units S2.087, PF1.477, and PF1.478 (continued)

- NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
  - a. Monitoring, Recordkeeping, Reporting and Compliance
    On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of cement/fly ash/shotcrete loaded into **\$2.087** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly cement/fly ash/shotcrete throughput and the total cement/fly ash/shotcrete throughput for the previous 12 months.
    - (2) Monitor and record the amount of cement/fly ash/shotcrete discharged from **PF1.477** and **PF1.478**, each, on a monthly basis. The amount of cement/fly ash/shotcrete will be based on purchasing receipts and measurements of the level of cement/fly ash/shotcrete in the silo at the beginning and end of the month. At the end of each calendar month, record the total cement/fly ash/shotcrete throughput for the previous 12 months.
    - (3) Conduct and record an inspection of the vent filter on **S2.087** on a quarterly basis noting the condition of the filter material and housing. Record any corrective actions taken.
    - (4) Monitor and record the hours of operation of PF1.477 and PF1.478, each, on a monthly basis.
    - (5) Install, calibrate, operate and maintain a device for the measurement of the level of cement/fly ash/shotcrete in the silos.
    - (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.087 and from PF1.477 and PF1.478**, each, on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.087, PF1.477, and PF1.478**, each, is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.087, PF1.477 and PF1.478**, each, not operating or due to poor weather conditions.
    - (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (8) The hourly loading rate in tons per hour for **\$2.087** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (9) The hourly throughput rate in tons per hour for PF1.477 and PF1.478, each, will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
    - (10) The required monitoring established in (1) through (9) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.087**, **PF1.477**, and **PF1.478**, each, is operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily and monthly throughput rate of cement/fly ash/shotcrete, in tons, for the corresponding date.
      - (iii) The total daily and monthly hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of cement/fly ash/shotcrete, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in (1), (2), and (3) above.
      - (v) Results and condition of the quarterly inspection of the vent filter on S2.087 and any corrective actions taken.
      - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Shielded Requirements

Compliance with conditions CZ.1 through CZ.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### NAC Requirements:

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

DA. Emission Units PF1.479 and PF1.480 Location North 4,539.3 km, East 552.0 km, UTM (Zone 11)

DA. System 101 - Meikle Shotcrete Loadout Station Extension

PF 1.479 Conveyor #2 Discharge PF 1.480 Conveyor #3 Discharge

NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

Emissions from PF1.479 and PF1.480 will be controlled by best operating practices.

2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

**Emission Limits** 

On and after the date of startup of **PF1.479** and **PF1.480**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.479** and **PF1.480**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.22 pound per hour, each, nor exceed 0.05 ton per year, each, based on a 12-month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.46** pound per hour, each, nor exceed **0.11** ton per year, each, based on a 12-month rolling period.
- c. NAC 445B.22017 (State Only Requirement) The opacity from PF1.479 and PF1.480, each, will not equal or exceed 20% in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.479** and **PF1.480**, each, will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Operating Parameters</u>
  - a. The maximum allowable throughput rate for **PF1.479** and **PF1.480**, each, will not exceed **90.0** tons of cement/fly ash/shotcrete per any one-hour period, nor more than **45,000** tons of cement/fly ash/shotcrete per year, based on a 12-month rolling period.
  - b. PF1.479 and PF1.480 may operate 8,760 hours per year, each.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

### DA. Emission Units PF1.479 and PF1.480 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring, Recordkeeping, Reporting and Compliance
     On and after the date of initial startup, Permittee will:
    - Monitor and record the throughput of PF1.479 and PF1.480, each, on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of PF1.479 and PF1.480, each, on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.479** and **PF1.480**, each, on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.479** and **PF1.480**, each, is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.479** and **PF1.480**, each, not operating or due to poor weather conditions.
    - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (5) The hourly throughput rate in tons per hour for **PF1.479 and PF1.480**, each, will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (6) The required monitoring established in (1) through (5) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.479 and PF1.480**, each, is operating:
      - (i) The calendar date of any required monitoring.
      - (ii) The total daily throughput rate of cement/fly ash/shotcrete, in tons, for the corresponding date.
      - (iii) The total daily hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of cement/fly ash/shotcrete, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
      - (v) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### **Shielded Requirements**

Compliance with conditions DA.1 through DA.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### NAC Requirements:

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

DB. Emission Units S2.088, PF1.481, and PF1.482 Location North 4,538.1 km, East 552.1 km, UTM (Zone 11)

### DB. System 102 - Rodeo Shotcrete Loadout Station Silo #1

S 2.088 Silo #1 Loading

PF 1.481 Silo #1 transfer to Silo #1 Conveyor
PF 1.482 Silo #1 Conveyor Discharge

### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Air Pollution Equipment

- a. Emissions from **\$2.088** will be ducted to a vent filter with 100% capture.
- Emissions from PF1.481 and PF1.482 will be controlled by best operating practices.

### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **S2.088**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.088**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.03** pound per hour, nor exceed **0.01** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.08** pound per hour, nor exceed **0.03** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust vent of **S2.088** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vent of **\$2.088** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. On and after the date of startup of **PF1.481** and **PF1.482**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.481** and **PF1.482**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.19 pound per hour, each, nor exceed 0.07 ton per year, each, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.41** pound per hour, each, nor exceed **0.15** ton per year, each, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.481 and PF1.482**, each, will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from PF1.481 and PF1.482, each, will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Operating Parameters

- a. The maximum allowable loading rate for **\$2.088** will not exceed **80.0** tons of cement/fly ash/shotcrete per any one-hour period, nor more than **60,000** tons of cement/fly ash/shotcrete per year, based on a 12-month rolling period.
- b. The maximum allowable throughput rate for **PF1.481** and **PF1.482**, each, will not exceed **80.0** tons of cement/fly ash/shotcrete per any one-hour period, nor more than **60,000** tons of cement/fly ash/shotcrete per year, based on a 12-month rolling period.
- c. **S2.088**, **PF1.481**, and **PF1.482** may operate **8,760** hours per year, each.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

### DB. Emission Units S2.088, PF1.481, and PF1.482 (continued)

- . NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
  - Monitoring, Recordkeeping, Reporting and Compliance
     On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of cement/fly ash/shotcrete loaded into **S2.088** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly cement/fly ash/shotcrete throughput and the total cement/fly ash/shotcrete throughput for the previous 12 months.
    - (2) Monitor and record the amount of cement/fly ash/shotcrete discharged from **PF1.481** and **PF1.482**, each, on a monthly basis. The amount of cement/fly ash/shotcrete will be based on purchasing receipts and measurements of the level of cement/fly ash/shotcrete in the silo at the beginning and end of the month. At the end of each calendar month, record the total cement/fly ash/shotcrete throughput for the previous 12 months.
    - (3) Conduct and record an inspection of the vent filter on **S2.088** on a quarterly basis noting the condition of the filter material and housing. Record any corrective actions taken.
    - (4) Monitor and record the hours of operation of **PF1.481 and PF1.482**, each, on a monthly basis.
    - (5) Install, calibrate, operate and maintain a device for the measurement of the level of cement/fly ash/shotcrete in the silos.
    - (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.088 and from PF1.481 and PF1.482**, each, on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.088**, **PF1.481 and PF1.482**, each, is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.088**, **PF1.481 and PF1.482**, each, not operating or due to poor weather conditions.
    - (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (8) The hourly loading rate in tons per hour for **\$2.088** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (9) The hourly throughput rate in tons per hour for PF1.481 and PF1.482, each, will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
    - (10) The required monitoring established in (1) through (9) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.088**, **PF1.481**, and **PF1.482**, each, is operating:
      - The calendar date of any required monitoring.
      - (ii) The total daily and monthly throughput rate of cement/fly ash/shotcrete, in tons, for the corresponding date.
      - (iii) The total daily and monthly hours of operation for the corresponding date.
      - (iv) The corresponding average hourly throughput rate of cement/fly ash/shotcrete, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in (1), (2), and (4) above.
      - (v) Results and condition of the quarterly inspection of the vent filter on S2.088 and any corrective actions taken.
      - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Shielded Requirements

Compliance with conditions DB.1 through DB.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### NAC Requirements:

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

DC. Emission Units PF1.483 through PF1.485 Location North 4,538.5 km, East 552.2 km, UTM (Zone 11)

### DC. System 103A - Ore Fines Feed System

PF 1.483 Hopper (Loading)
PF 1.484 Hopper (discharge)

PF 1.485 Screw Conveyor transfer to Bucket Elevator

### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from **PF1.483** will be operated in a manner that minimizes emissions.
- Emissions from PF1.484 and PF1.485 will be controlled by enclosures.

### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### **Emission Limits**

- a. On and after the date of startup of PF1.483, Permittee will not discharge or cause the discharge into the atmosphere from PF1.483, the following pollutants in excess of the following specified limits:
  - 1) NAČ 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.03** pound per hour, nor exceed **0.12** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.08** pound per hour, nor exceed **0.35** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust vent of **PF1.483** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vent of PF1.483 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- On and after the date of startup of **PF1.484** and **PF1.485**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.484** and **PF1.485**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.003** pound per hour, each, nor exceed **0.012** ton per year, each, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.006** pound per hour, each, nor exceed **0.025** ton per year, each, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from **PF1.484 and PF1.485**, each, will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from PF1.484 and PF1.485, each, will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- New Source Performance Standards (NSPS) Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.483 through PF1.485** will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Process fugitive emissions from **PF1.483 through PF1.485**, each, will not exceed **10 percent** opacity. (40 CFR Part 60.382(b))
- (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
- At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.483 through PF1.485** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### **Operating Parameters**

- a. The maximum allowable throughput rate for PF1.483 through PF1.485, each, will not exceed 30.0 tons of ore per any one-hour period.
- b. PF1.483 through PF1.485 may operate 8,760 hours per year, each.

# **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

- DC. Emission Units PF1.483 through PF1.485 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> <u>Monitoring</u>, Recordkeeping, Reporting and Compliance
    - For the purposes of demonstrating initial compliance with the emissions limitations established in Section VI for **PF1.483 through PF1.485**, opacity observations shall be conducted using Method 9 in Appendix A of 40 CFR Part 60 and the procedures in 40 CFR Parts 60.11 and 60.675, which include the following:
      - (1) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
      - (2) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position related to the sun (Method 9, Section 2.1) must be followed.
      - (3) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
    - b. Opacity observations shall be conducted within 60 days after achieving the maximum production rate at which **PF1.483 through PF1.485** will be operated, but no later than 180 days after initial startup of **PF1.483 through PF1.485**. The minimum total time of observations shall be 3 hours (30 6-minute averages). The observer shall read opacity only when emissions are clearly emanating solely from the affected facility being observed (40 CFR Part 60.11(b), 60.11(e)(1)). The duration of the Method 9 observations may be reduced from 3-hours (30 6-minute averages) to 1-hour (10 6-minute averages) only if the following conditions apply (40 CFR Part 60.675):
      - (1) There are no individual readings greater than 10 percent opacity; and
      - (2) There are no more than 3 readings of 10 percent for the 1-hour period.

If emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

- (1) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.
- 2) Separate the emissions so that the opacity of emissions from each affected facility can be read.
- c. Permittee shall provide notification of the anticipated date for conducting the opacity observations required in Section VI. The notification shall be postmarked not less than 30 days prior to such date. (40 CFR Part 60.7(a)(6))
- d. Within 60 days after completing the opacity observations contained in Section VI, Permittee shall furnish the director a written report of the results of the opacity observations required in Section VI (40 CFR Part 60.8(a)). All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3497, inclusive. (NAC 445B.252.8)
- e. Monitoring and Recordkeeping
  - On and after the date of initial startup, Permittee will:
  - (1) Monitor and record the throughput of PF1.483 through PF1.485, each, on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
  - (2) Monitor and record the hours of operation of **PF1.483 through PF1.485**, each, on a daily basis. At the end of each calendar month, record the total monthly hours of operation and the total hours of operation for the previous 12 months.
  - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.483 through PF1.485, each, on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.483 through PF1.485, each, is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.483 through PF1.485, each, not operating or due to poor weather conditions.
  - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
  - (5) The hourly throughput rate in tons per hour for PF1.483 through PF1.485, each, will be determined from the total daily throughput and the total daily hours of operation recorded above.
  - (6) The required monitoring established in (1) through (5) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.483 through PF1.485**, each, are operating:
    - (i) The calendar date of any required monitoring.
    - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
    - (iii) The total daily hours of operation for the corresponding date.
    - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (1) and (2) above.
    - (v) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

- DC. Emission Units PF1.483 through PF1.485 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>

    Monitoring, Recordkeeping, Reporting and Compliance
    - f. New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b)) Permittee, upon the issuance date of this permit, shall:
      - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
  - 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program Shielded Requirements

Compliance with conditions DC.1 through DC.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### NAC Requirements:

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).



### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

DD. Emission Units S2.316 Location North 4,538.5 km, East 552.2 km, UTM (Zone 11)

### DD. System 103B - Ore Fines Feed System (Ore Fines Drying and Storage System)

- S 2.316.1 Fluid Bed Dryer
- S 2.316.2 Surge Bin
- S 2.316.3 Dense Phase Pneumatic Conveying System
- S 2.316.4 Ore Fines Silo, 30 ton (loading)

### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

Emissions from S2.316 will be ducted to a control system consisting of a baghouse (DC-211). DC-211 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.316, including startup and shutdown. Maximum volume flow rate of DC-211 will not exceed 54,000 actual cubic feet per minute (acfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director). The capture efficiency of the control system will be 100% such that all process emissions from each emission unit indicated for S2.316 will be captured and ducted to DC-211.

Stack Height: 40 ft
Stack Inside Diameter: 4.2 ft
Stack Exit Temperature: 160 °F
Volume Flowrate: 54,000 acfm

### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### **Emission Limits**

- a. On and after the date of startup of S2.316, Permittee will not discharge or cause the discharge into the atmosphere from the stack discharge of DC-211 the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **2.55** pounds per hour, nor exceed **11.15** tons per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **2.55** pounds per hour, nor exceed **11.15** tons per year, based on a 12-month rolling period.
  - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **0.16** pound per hour, nor exceed **0.70** ton per year, based on a 12-month rolling period.
  - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed **1.90** pounds per hour, nor exceed **8.32** tons per year, based on a 12-month rolling period.
  - (5) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere will not exceed **0.96** pound per hour, nor exceed **4.20** tons per year, based on a 12-month rolling period.
  - (6) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed **0.09** pound per hour, nor exceed **0.39** ton per year, based on a 12-month rolling period.
  - (7) NAC 445B.22017 (State Only Requirement) The opacity from DC-211 will not equal or exceed 20 percent in accordance with NAC 445B 22017
  - (8) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from DC-211 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- b. New Source Performance Standards Subpart LL Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part
  - On and after the date on which the performance test required to be conducted is completed, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **DC-211** the following pollutants in excess of the following specified limits:
  - (1) Emissions of particulate matter in excess of **0.05** gram per dry standard cubic meter. (40 CFR Part 60.382(a)(1))
  - (2) Emissions that exhibit greater than **7 percent** opacity. (40 CFR Part 60.382(a)(2))
  - (3) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
  - (4) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **S2.316** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

### DD. Emission Units S2.316 (continued)

3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Operating Parameters

- a. The maximum allowable throughput rate for \$2.316 will not exceed 30.0 tons of ore per any one-hour period.
- S2.316 may combust HD-5 grade propane only.
- c. The maximum fuel consumption rate for \$2.316 will not exceed 100 gallons of HD-5 grade propane per any one-hour period
- b. S2.316 may operate 8,760 hours per year, each.
- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

40 CFR Part 64 Compliance Assurance Monitoring Program

- a. Initial and Periodic Compliance Testing
  - Permittee will conduct and record the following initial and periodic compliance tests on the exhaust stack of **DC-211**. Within 60 days after achieving the maximum production rate at which **S2.316** will be operated, but not later than 180 days after initial startup of **S2.316**, an initial compliance test will be conducted. **The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests. The initial and periodic compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition DD.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in DD.3 of this Section).** 
    - (i) Method 201A and 202 compliance tests in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
    - (ii) Method 5 or 17 (with back-half catch) compliance tests in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM.
    - (iii) Method 10 compliance tests in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for CO.
    - (iv) Method 7E compliance tests in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for NO<sub>x</sub>.
  - (2) The Method 201A and Method 202 tests required in DD.4.a.(1) of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in DD.2 of this section.
  - (3) Compliance tests required under DD.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in DD.3 of this section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
  - (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of **DC-211** in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
  - (5) Within 60 days after achieving the maximum production rate at which **S2.316** will be operated, but not later than 180 days after initial startup of **S2.316**, conduct an initial opacity observations in accordance with Method 9 in Appendix A of 40 CFR Part 60. For purposes of determining initial compliance, the minimum total time of observation shall be 3 hours (30 6-minute averages). (40 CFR 60.11(b))

### **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

### DD. Emission Units S2.316 (continued)

- NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
   CFR Part 64 Compliance Assurance Monitoring Program
  - b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the amount of HD-5 grade propane combusted in S2.316 and the ore throughput of S2.316 on a daily basis. At the end of each calendar month, record the total monthly fuel use and ore throughput, and the total fuel use and ore throughput for the previous 12 months.
- (2) Monitor and record the hours of operation of **S2.316** on a daily basis.
- (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across **Baghouse DC-211** and the fuel consumption rate for each fuel combusted in **S2.316**.
- (4) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of **DC-211**, <u>based on a one-hour period</u>, once during each day of operation. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (5) The indicator range for the baghouse pressure drop shall be between **0.5** and **10.0** inches of water for **DC-211**. Excursions shall be defined as anytime the baghouse pressure drop, <u>based on a one-hour period</u>, falls outside this indicator range.
- Conduct and record a baghouse inspection on an annual basis.
- Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of **DC-211** on a **monthly** basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.316 is** operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.316** not operating or due to poor weather conditions.
- (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (9) The hourly fuel consumption rate in gallons per hour for **S2.316** will be determined from the total daily fuel consumption and the total daily hours of operation recorded above.
- (10) The hourly throughput rate in tons per hour for **S2.316** will be determined from the total daily throughput and the total daily hours of operation recorded above.
- (11) The required monitoring established in b.(1) through (10) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.316** are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily throughput rate of ore, in tons, for the corresponding date.
  - (iii) The total daily hours of operation for the corresponding date.
  - (iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in b.(1) and (2) above.
  - (v) The total daily fuel consumption rate of gallons of propane for the corresponding date.
  - (vi) The corresponding average hourly fuel consumption rate of gallons of propane. The average hourly fuel consumption rate will be determined from the daily fuel consumption rate and the total daily hours of operation recorded in b.(1) and (2) above.
  - (vii) Results of the one-hour period reading of the pressure drop across **Baghouse DC-211**, each day that **S2.316** is in operation.
  - (viii) Results and verification of the annual baghouse inspection and documentation of the inspection date of **Baghouse DC-211**, and any corrective actions taken.
  - (ix) Results and verification of the **monthly** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- c. New Source Performance Standards (NSPS) Notification and Record Keeping (40 CFR Part 60.7(b)) Permittee, upon the issuance date of this permit, shall:
  - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VI. Specific Operating Conditions (continued)

### DD. Emission Units S2.316 (continued)

5. NAC 445B.3405 (NAC 445B.316) Part 70 Program Shielded Requirements

Compliance with conditions DD.1 through DD.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

#### Applicable SIP Requirements:

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### NAC Requirements:

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee
Section VI. Specific Operating Conditions (continued)

DE. Emission Unit S2.317 Location North 4,537.10 km, East 552.30 km, UTM (Zone 11)

### DE. System 104 - Fuel Oil Storage Tank

- S 2.317 Fuel Oil Storage Tank, 250,000 gallons
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program
     <u>Air Pollution Equipment</u>
     S2.317 is a fixed roof tank equipped for submerged filling.
  - 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Emission Limits</u>
    - a. On and after the date of startup of **S2.317**, Permittee will not discharge or cause the discharge into the atmosphere from **S2.315**, the following pollutants in excess of the following specified limits:
      - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.093 ton per year, based on a 12-month rolling period.
      - (2) NAC 445B.22017 (State Only Requirement) The opacity from **S2.317** will not equal or exceed **20%** in accordance with NAC 445B 22017
      - (3) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from \$2.317 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Operating Parameters

- S2.317 may store fuel oil only.
- b. The maximum allowable throughput for **\$2.317** will not exceed **5,600,000** gallons of #2 fuel oil per year, based on a 12-month rolling period.
- c. **S2.317** may operate **8,760** hours per year.
- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - a. <u>Monitoring, Recordkeeping, Reporting and Compliance</u>
    On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of fuel loaded in S2.317 on a monthly basis. At the end of each calendar month, record the total fuel throughput for the previous 12 months.
    - (2) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Shielded Requirements</u>

N/A

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

DF. Emission Unit S2.318 Location North 4,536.20 km, East 554.63 km, UTM (Zone 11)

### DF. System 105 - Mobile Boiler

S 2.318 Mobile Boiler, 13.2 MMBtu

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

On and after the date of startup of **S2.318**, Permittee will operate **S2.318** in accordance with the manufacturer's specifications and in a manner that minimizes emissions.

2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### **Emission Limits**

On and after the date of startup of **S2.318**, Permittee will not discharge nor cause the discharge into the atmosphere from the exhaust stacks of **S2.318**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.13 pound per hour, nor more than 0.58 ton per year, based on a 12-month rolling period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.13** pound per hour, nor more than **0.58** ton per year, based on a 12-month rolling period.
- c. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of SO2 (sulfur dioxide) to the atmosphere will not exceed **0.23** pound per hour, nor more than **1.00** ton per year, based on a 12-month rolling period.
- d. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of NOx (nitrogen oxides) to the atmosphere will not exceed **1.19** pounds per hour, nor more than **5.20** tons per year, based on a 12-month rolling period.
- e. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of CO (carbon monoxide) to the atmosphere will not exceed **1.19** pounds per hour, nor more than **5.20** tons per year, based on a 12-month rolling period.
- f. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.05 pound per hour, nor more than 0.23 ton per year, based on a 12-month rolling period.
- g. NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stacks of S2.318 will not equal or exceed 20% in accordance with NAC 445B.22017.
- h. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stacks of **\$2.318** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Operating Parameters

- a. S2.318 may combust either propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
- b. The maximum fuel consumption rate for \$2.318 will not exceed 144 gallons of propane nor exceed 13,200 cubic feet of pipeline quality natural gas per any one-hour period.
- c. The maximum heat input rate for **\$2.318** will not exceed **13.2** million Btu's per hour.
- d. **\$2.318** may operate **8,760** hours per year.

## **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

### DF. Emission Unit S2.318 (continued)

NAC 445B.3405 (NAC 445B.316) Part 70 Program
 Monitoring, Recordkeeping, Reporting and Compliance
 On and after the date of initial startup, Permittee will:

- a. Monitor and record the quantity and type of fuel combusted in \$2.318 on a daily basis.
- Monitor and record the hours of operation of \$2.318 on a daily basis.
- c. Conduct and record an assessment of the visible emissions (excluding water vapor) from \$2.318 once per month. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while \$2.318 is operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to \$2.318 not operating or due to poor weather conditions.
- d. Conduct and record a Method 5 or 17 (with back-half catch) source test for PM, Method 201A and 202 source tests for PM10, a Method 7E source test for NOx, a Method 25 source test for VOC, and a Method 10 source test for CO on the exhaust stack of \$2.318 consisting of three valid runs, per source test. The compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests.
- e. Permittee may substitute the Method 5 or 17 test (with back-half catch) for the Method 201A and 202 tests. All particulate captured in the Method 5 or 17 test (with back-half catch) will be considered PM10 for compliance demonstration purposes.
- f. The hourly fuel consumption rate in gallons per hour of propane and cubic feet per hour of pipeline quality natural gas for **S2.318** will be determined from the total daily fuel consumption and the total daily hours of operation recorded above.
- g. The hourly heat input rate in millions of Btu's per hour for **\$2.318** will be determined from the total daily heat input and the total daily hours of operation recorded above.
- h. The compliance tests required for NOx and CO under DF.4.d of this Section will be conducted within 60 days of switching the fuel combusted in **S2.318** as allowed under DF.3.a of this Section.
- i. Reporting Permittee will notify the Director within 15 days of switching the fuels combusted in **S2.318** as allowed under DF.3.a. of this Section.
- j. The required monitoring established in a. through i. above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.318** is operating:
  - The calendar date of any required monitoring.
  - Maintain a contemporaneous log of each switching of fuels combusted in **S2.318**. The log must contain, at a minimum, the date and time of each switching of fuels combusted in **S2.318**.
  - (iii) The total daily hours of operation for the corresponding date.
  - (iv) The total daily fuel consumption rate of gallons or cubic feet for the corresponding date.
  - (v) The corresponding average hourly fuel consumption rate of gallons or cubic feet. The average hourly fuel consumption rate will be determined from the daily fuel consumption rate and the total daily hours of operation recorded in a. and b. above.
  - (vi) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Shielded Requirements

### Applicable SIP Requirements:

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

Article 8.2 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### NAC Requirements:

445B.2203 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

445B.22047 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

DG. Emission Unit S2.319 Location North 4,535.96 km, East 554.77 km, UTM (Zone 11)

### DG. System 106 - Autoclave Mixing Tank

S 2.319 Autoclave Mixing Tank Loading

1. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* 

### Air Pollution Equipment

Emissions from **S2.319** will be ducted to a control system consisting of a wet scrubber **(WS-206)** with a maximum volume flow rate of 2,500 actual cubic feet per minute (acfm). **WS-206** will be operated in accordance with the manufacturer's recommendations at all times during operation of **S2.319** including startup and shutdown. The capture efficiency of the control system will be 100% such that all process emissions from **S2.319** will be captured and ducted to **WS-206**.

### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Emission Limits</u>

- a. On and after the date of startup of S2.319, Permittee will not discharge or cause the discharge into the atmosphere from the wet scrubber exhaust stack of WS-206 the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.43** pounds per hour, nor more than **1.88** tons per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.43** pounds per hour, nor more than **1.88** tons per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (Federally Enforceable SIP Requirement) The opacity from the wet scrubber exhaust stack of WS-206 will not equal or exceed 20% in accordance with NAC 445B.22017.

### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### **Operating Parameters**

- a. The maximum allowable loading rate for **\$2.319** will not exceed **10.0** tons of lime or soda ash per any one-hour period, nor more than **87,600** tons of lime or soda ash per year, based on a 12-month rolling period.
- b. **S2.319** may operate **8,760** hours per year.

### 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>

- a. Initial and Periodic Compliance Testing
  - (1) Permittee will conduct and record the following initial and periodic compliance tests on the exhaust stack of **WS-206**. Within 60 days after achieving the maximum production rate at which **S2.319** will be operated, but not later than 180 days after initial startup of **S2.319**, an initial compliance test will be conducted. **The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests. The initial and periodic compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition DG.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in DG.3 of this Section).** 
    - (i) Method 201A and 202 compliance tests in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
    - (ii) Method 5 or 17 (with back-half catch) compliance tests in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM.
  - (2) The Method 201A and Method 202 tests required in DG.4.a.(1) of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in DG.2 of this section.
  - (3) Compliance tests required under DG.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in DG.3 of this section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
  - (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the wet scrubber exhaust stack of **WS-206** in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
  - (5) Within 60 days after achieving the maximum production rate at which **S2.319** will be operated, but not later than 180 days after initial startup of **S2.319**, conduct an initial opacity observations in accordance with Method 9 in Appendix A of 40 CFR Part 60. For purposes of determining initial compliance, the minimum total time of observation shall be 3 hours (30 6-minute averages). (40 CFR 60.11(b))

### **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

### DG. Emission Units S2.319 (continued)

- NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> continued
  - b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the loading rate of **S2.319** on a daily basis. At the end of each calendar month, record the total monthly loading rate and the total loading rate for the previous 12 months.
- (2) Monitor and record the hours of operation of **\$2.319** on a daily basis.
- (3) Install, calibrate, operate, and maintain devices for the measurement of the pressure drop and water flow rate through the wet scrubber (WS-206).
- (4) Monitor and record the pressure drop and water flow rate through the wet scrubber (**WS-206**) each day that **S2.319** is in operation. Record any monitored occurrences when the pressure drop or water flow rate falls outside the specified operating range and record any corrective actions taken.
- (5) Conduct and record an assessment of the visible emissions (excluding water vapor) from **\$2.319** on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **\$2.319** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **\$2.319** not operating or due to poor weather conditions.
- (6) Maintain records of the specified operating ranges for the wet scrubber (**WS-206**) on site and available for inspection upon request. The specified operating ranges will be determined by the Permittee based on operating experience and the manufacturer's recommendations.
- (7) Maintain records of monitoring data, compliance tests, and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (8) The hourly loading rate in tons per hour for **S2.319** will be determined from the total daily loading rate and the total daily hours of operation recorded above.
- (9) The required monitoring established in (1) through (8) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.319** is operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily loading rate of lime or soda ash, in tons, for the corresponding date.
  - (iii) The total daily hours of operation for the corresponding date.
  - (iv) The corresponding average hourly loading rate of lime or soda ash, in tons per hour. The average hourly loading rate will be determined from the daily loading rate and the total daily hours of operation recorded in (1) and (2) above.
  - (v) The cumulative monthly loading rate of lime or soda ash, for each 12-month rolling period.
  - (vi) Results of the daily readings of the pressure drop and water flow rate through the wet scrubber (WS-206) on S2.319, each day that S2.319 is in operation.
  - (vii) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- 5. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*

### Shielded Requirements

Compliance with conditions DG.1 through DG.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

### Applicable SIP Requirements

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of the application for a minor modification, received March 19, 2008 (Case #08AP0248).

### **NAC Requirements**

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of the application for a minor modification, received March 19, 2008 (Case #08AP0248).

\*\*\*\*\*\*\*\*\*\*\*End of Specific Operating Conditions\*\*\*\*\*\*\*\*

### **BUREAU OF AIR POLLUTION CONTROL**

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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VII. Emission Caps

A. Cap for Emission Units S2.028 through S2.031 and PF1.018 through PF1.021

Syste	System 63 - Autoclave Silos 1 to 4		
S	2.028	Silo #1, 250 ton, load	
PF	1.018	Silo #1, 250 ton, discharge	
S	2.029	Silo #2, 500 ton, load	
PF	1.019	Silo #2, 500 ton, discharge	
S	2.030	Silo #3, 500 ton, load	
PF	1.020	Silo #3, 500 ton, discharge	
S	2.031	Silo #4, 1,000 ton, load	
PF	1.021	Silo #4, 1,000 ton, discharge	

### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Air Pollution Equipment

- Emissions from **S2.028 through S2.031** will be ducted to vent filters with 100% capture.
- Emissions from PF1.018 through PF1.021 will be controlled by enclosures that enclose each silo discharge point on all sides.

## 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

- a. On and after the date of startup of **S2.028 through S2.031**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vents of **S2.028 through S2.031**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **2.27** pounds per hour, total, nor exceed **1.08** tons per year, total, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **2.27** pounds per hour, total, nor exceed **1.08** ton per year, total, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from the exhaust vents of **S2.028 through S2.031** will not equal or exceed **20%** in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust vents of **\$2.028** through **\$2.031** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721
- b. On and after the date of startup of PF1.018 through PF1.021, Permittee will not discharge or cause the discharge into the atmosphere from PF1.018 through PF1.021 combined, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.211** pound per hour, total, nor exceed **0.398** ton per year, total, based on a 12-month rolling period.
  - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed **0.211** pound per hour, total, nor exceed **0.398** ton per year, total, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (State Only Requirement) The opacity from PF1.018 through PF1.021 each will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from **PF1.018 through PF1.021** will not equal or exceed **20%** for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

## 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program Operating Parameters

- The maximum allowable loading rate for **S2.028 through S2.031** will not exceed **420.0** tons of lime or soda ash per any one-hour period, total, nor more than **398,480** tons of lime or soda ash per year, total, based on a 12-month rolling period.
- b. The maximum allowable discharge rate for **PF1.018 through PF1.021** will not exceed **105.0** tons of lime or soda ash per any one-hour period, total, nor more than **398,480** tons of lime or soda ash per year, total, based on a 12-month rolling period.
- c. S2.028 through S2.031 and PF1.018 through PF1.021 may operate 8,760 hours per year, each.

### **BUREAU OF AIR POLLUTION CONTROL**

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# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VII. Emission Caps (continued)

- A. Cap for Emission Units S2.028 through S2.031 and PF1.018 through PF1.021 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - a. Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of initial startup, Permittee will:

- Monitor and record the total amount of lime or soda ash unloaded from the delivery truck(s) to **S2.028**, **S2.029**, **S2.030** or **S2.031** and the duration of the truck unloading process each day lime or soda ash is delivered. At the end of each calendar month, record the total monthly lime or soda ash throughput and the total lime or soda ash throughput for the previous 12 months.
- (2) Monitor and record the amount of lime or soda ash discharged from PF1.018 through PF1.021 on a monthly basis. The amount of lime or soda ash will be based on purchasing receipts and measurements of the level of lime or soda ash in the silo at the beginning and end of the month. At the end of each calendar month, record the total lime or soda ash throughput for the previous 12 months.
- (3) Monitor and record the hours of operation of PF1.018 through PF1.021 on a monthly basis.
- (4) Install, calibrate, operate and maintain a device for the measurement of the level of lime or soda ash in each silo.
- (5) Conduct and record an inspection of the vent filters on S2.028 through S2.031 on a quarterly basis noting the condition of the filter material and housing. Record any corrective actions taken.
- (6) Conduct and record an inspection of the enclosures on **PF1.018 through PF1.021** on a monthly basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
- (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.028 through S2.031** and from **PF1.018 through PF1.021** on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and **S2.028 through S2.031** and **PF1.018 through PF1.021** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.028 through S2.031** and **PF1.018 through PF1.021** not operating or due to poor weather conditions.
- (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (9) The hourly discharge rate in tons per hour for **PF1.018 through PF1.021** will be determined from the total monthly throughput and the total monthly hours of operation recorded above. This calculated rate will be used for compliance demonstration with the throughput limitation established in A.3.b. of this Section.
- (10) The hourly loading rate in tons per hour for **\$2.028** through **\$2.031** will be determined from the total daily throughput and the total daily hours of operation recorded above. This calculated rate will be used for compliance demonstration with the throughput limitation established in A.3.a of this Section.
- (11) The required monitoring established in (1) through (10) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.028 through S2.031**, and **PF1.018 through PF1.021** each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily and monthly throughput rate of lime or soda ash, in tons, for the corresponding date.
  - (iii) The total daily and monthly hours of operation for the corresponding date.
  - The corresponding average hourly throughput rate of lime or soda ash, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in (1) through (3) above.
  - (v) Results and condition of the quarterly inspections of the vent filters on S2.028 through S2.031 each, and any corrective actions taken.
  - (vi) Results and verification of the **monthly** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### **Shielded Requirements**

Compliance with conditions A.1 through A.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

### Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### NAC Requirements:

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VII. Emission Caps (continued)

B. Cap for Emission Units S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4

### Systems 90, 91 & 92 - Cap for Electric Power Generators

- S 2.311.1 Diesel-fueled engine electric-generator #1 (MP-750, Autoclave)
- 2.311.2 Diesel-fueled engine electric-generator #2 (MP-598, Autoclave)
- S 2.311.3 Diesel-fueled engine electric-generator #3 (MP-606, Autoclave)
- S 2.311.4 Diesel-fueled engine electric-generator #4 (MP-607, Autoclave)
- S 2.312.1 Diesel-fueled engine electric-generator #5 (MP-608, Mill)
- S 2.312.2 Diesel-fueled engine electric-generator #10 (KCG-002, Meikle)
- S 2.313.1 Diesel-fueled engine electric-generator #6 (MP-610, Roaster)
- S 2.313.2 Diesel-fueled engine electric-generator #7 (MP-705, Roaster)
- S 2.313.3 Diesel-fueled engine electric-generator #8 (MP-706, Roaster)
- S 2.313.4 Diesel-fueled engine electric-generator #9 (MP-704, Rodeo)
  - 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

### Air Pollution Equipment

S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4 will each be operated in a manner that minimizes emissions.

2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

### **Emission Limits**

On and after the date of startup of S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The combined discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere from S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4 will not exceed 5.6 short tons per year, based on a rolling 12-month period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The combined discharge of PM (particulate matter) to the atmosphere from **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4,** will not exceed **5.6 short tons per year**, based on a rolling 12-month period.
- c. NAC 445B.305 (Federally Enforceable Part 70 Program) The combined discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere from **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**, will not equal or exceed **40 short tons per year**, based on a rolling 12-month period.
- d. NAC 445B.305 (Federally Enforceable Part 70 Program) The combined discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere from **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4,** will not exceed **3.22 short tons per year**, based on a rolling 12-month period.
- e. NAC 445B.305 (Federally Enforceable Part 70 Program) The combined discharge of CO (carbon monoxide) to the atmosphere from **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**, will not exceed **10.0 short tons per year**, based on a rolling 12-month period.
- f. NAC 445B.305 (Federally Enforceable Part 70 Program) The combined discharge of VOC (volatile organic compounds) to the atmosphere from S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4, will not exceed 5.6 short tons per year, based on a rolling 12-month period.
- g. The emissions from each of **S2.311.1 through S2.311.4**, **S2.312.1 through S2.312.2**, and **S2.313.1 through S2.313.4**, will not exceed the opacity limitations specified in Section VI.CL.2, VI.CM.2 and VI.CN.2 of this operating permit.
- NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Operating Parameters</u>
  - Permittee will comply with the specific operating conditions contained in Section VI.CL.3, VI.CM.3 and VI.CN.3.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VII. Emission Caps (continued)

- B. Cap for Emission Units S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - Monitoring, Recordkeeping, Reporting and Compliance
       On and after the date of initial startup, Permittee will:
      - (1) Calculate and record the total emissions of PM<sub>10</sub>, PM, SO<sub>2</sub>, and VOC, in tons, on a monthly basis, from **S2.311.1 through S2.312.1 through S2.312.2**, and **S2.313.1 through S2.313.4**. The calculation will be based on the total number of hours of backup operation recorded pursuant to CL.4.b., CM.4.b. and CN.4.b. of Section VI, multiplied by the appropriate hourly emission limit for **S2.311.1 through S2.311.4**, **S2.312.1 through S2.312.2**, and **S2.313.1 through S2.313.4**, as specified in CL.2, CM.2 and CN.2 of Section VI.
      - Calculate and record the total emissions of NO<sub>x</sub> and CO, each, in tons, on a monthly basis, from **S2.311.1 through S2.311.4**, **S2.312.1 through S2.312.2**, and **S2.313.1 through S2.313.4**, individually, based on the number of hours of backup operation recorded pursuant to CL.4.b., CM.4.b. and CN.4.b. of Section VI, the results of the most recent emission measurement conducted pursuant to CL.4.a., CM.4.a. and CN.4.a. of Section VI or B.4.b of this Section, and the flow rate measurements conducted pursuant to CL.4.a.(1), CM.4.a.(1) and CN.4.a.(1). The exact procedures for this calculation shall be specified in the monitoring plan required pursuant to CL.4.a.(5), CM.4.a.(5) and CN.4.a.(5).
      - (3) Calculate and record the cumulative 12-month rolling average emissions of PM<sub>10</sub>, PM, SO<sub>2</sub>, and VOC by summing 12 consecutive monthly emissions for each pollutant determined pursuant to B.4.a.(1) of the Section. Calculate and record the cumulative 12-month rolling average emissions of NO<sub>x</sub> and CO by summing 12 consecutive monthly emissions determined pursuant to B.4.a.(2) of this Section.
      - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - b. Periodic Compliance Testing
      - Permittee will monitor and record the concentration of NO<sub>x</sub> and CO in each of the exhaust stacks of **\$2.311.1** through **\$2.311.4**, **\$2.312.1** through **\$2.312.2**, and **\$2.313.1** through **\$2.313.4** that operated since the last round of NO<sub>x</sub>/CO compliance testing. The monitoring will be performed with the portable NO<sub>x</sub>/CO exhaust-gas monitoring device specified in Sections VI.CL.4.a., VI.CM.4.a. and VI.CN.4.a. of this operating permit. The portable gas analyzer will measure NO<sub>x</sub> and CO emissions for a period of not less than 1 hour for each exhaust stack. The periodic test will be conducted no less than once every 1000 hours of cumulative backup operations for **\$2.311.1** through **\$2.311.4**, **\$2.312.1** through **\$2.312.2**, and **\$2.313.1** through **\$2.313.4** at the maximum electrical output (subject to Condition B.4.b(3) of this Section and not to exceed the maximum electrical output as established in B.3 of this Section).
      - (2) Performance specifications and quality assurance procedures for the portable NO<sub>x</sub>/CO exhaust-gas monitoring device shall be contained in the monitoring plan required pursuant to CL.4.a.(5), CM.4.b.(5) and CN.4.a.(5).
      - (3) Testing required under B.4.b(1) of this Section that are conducted below the maximum electrical output, as established in CL.3, CM.3 and CN.3 of Section VI, will be subject to the Director's review to determine if the electrical output during the tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the periodic compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.

\*\*\*\*\*\*\*\*\*\*\*End of Emission Caps\*\*\*\*\*\*\*\*

# **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SDECIFIC ODED ATING DECLIDEMENTS

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	Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VIII. Surface Area Disturbance Conditions						
A. Dust Control Plan							
	1.	Permittee will control 30, 2004.	rol fugitive dust in accordance	e with the dust control p	an entitled "Fugitive C	Dust Control Plan", as sul	omitted on <b>January</b>
		****	***End of Surfac	e Area Disturl	bance Conditi	ions*******	***

VIII-1

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section IX. Schedules of Compliance					
	*********End of Schedules of Compliance*********				

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0005 Draft Permit No. AP1041-0739.02 CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

**Section X. Amendments** 

**Draft** - Minor Revision. Add specific operating conditions for pressure relief vents in System 19, Section VI.S. Remove "lime" from System 63 description. Add soda ash as a material that can be used in System 63, Section VIIA. Add new autoclave mixing tank, System 106, emission unit S2.319. PM and PM<sub>10</sub> emission limits will increase by 1.88 tons per year as a result of the addition of System 106. (Air Case #08AP0248).

### This permit:

- 1. Is non-transferable. (NAC 445B.287) Part 70 Program
- 2. Will be posted conspicuously at or near the stationary source. (NAC 445B.318)(State Only Requirement)
- 3. Will expire and be subject to renewal five (5) years from <u>July 17, 2007</u>. (NAC 445B.315) *Part 70 Program*
- 4. A complete application for renewal of an operating permit must be submitted to the director on the form provided by him with the appropriate fee at least 240 calendar days before the expiration date of this operating permit. (NAC 445B.323.2) <u>Part 70 Program</u>
- 5. Any party aggrieved by the Department's decision to issue this permit may appeal to the State Environmental Commission (SEC) within ten days after the date of notice of the Department's action. (NRS 445B.340)(State Only Requirement)

THIS PERMIT EXPIRES ON:	July 17, 2012			
	Signature	Draft Copy		
	Issued by:	Matthew A. DeBurle, P.E. Supervisor, Class I Permitting Bran Bureau of Air Pollution Control		
fv 03/07 rp 05/08	Phone:	(775) 687-9391	Date:	Draft

## **BUREAU OF AIR POLLUTION CONTROL**

# CLASS I NON-PERMIT EQUIPMENT LIST Appended to Barrick Goldstrike Mines, Inc. Facility #A0005 Permit #AP1041-0739.02

Emiocian	Emission Unit	
Emission Unit #	Emission Unit Description	
IA1.001	Temporary Shotcrete Plant; Maximum throughput rates are as follows: 36.0 cubic yards of shotcrete per day, 13,140.0 cubic yards of	
	shotcrete per year, based on a 12-month rolling period.	
IA1.002	Hazen Pilot Scale Fluidized Bed Roaster with Integral Quenching Eductor; Maximum ore throughput rate of 45.0 pounds per hour.	
IA1.003	SAG and ball mills and associated screens and cyclones	
IA1.004	Pre-oxidation thickener tanks	
IA1.005	Acidulation tanks	
IA1.006	Flash tanks	
IA1.007	Slurry cooler surge tanks	
IA1.008	Slurry coolers	
IA1.009	Neutralization tanks	
IA1.010	Carbon-in-leach tanks	
IA1.011	Carbon-in-leach screens	
IA1.012	Cyanide destruction system	
IA1.013	Reclaim water tanks	
IA1.014	Electrowinning circuit	
IA1.015	Carbon acid wash vessels	
IA1.016	Propane-fired carbon strip heaters with a rated heat input < 4 MMBtu per hour	
IA1.017 IA1.018	Mill refinery central vacuum system Carbon Reactivation guench tanks	
IA1.016	Carbon screens	
IA1.019	Activated carbon tanks	
IA1.020	Laboratory sample preparation equipment with a throughput rate of < 50 pounds per hour	
IA1.021	Propane storage tanks	
IA1.022	Ammonium tank	
IA1.024	Various storage tanks containing: waste oil, jet fuel, diesel fuel, lubricating oils and greases, gasoline and other miscellaneous Volatile	
17.1.024	Organic Liquids – with maximum storage capacities < 40,000 gallons and NOT SUBJECT to 40 CFR Part 60, Subparts K, Ka or Kb.	
IA1.025	Propane vaporizers, building heaters and other miscellaneous heaters with a rated heat input < 4 MMBtu per hour.	
IA1.026	Antifreeze (glycol) storage tank with maximum storage capacity < 10,000 gallons.	
IA1.027	Portable internal combustion engines with rated output < 500 hp	
IA1.028	Portable internal combustion engines with rated output > 500 hp, but operated < 100 hours per year	
IA1.029	Stationary internal combustion engines with rated output < 250 hp	
IA1.030	Stationary internal combustion engines with rated output > 250 hp, but operated < 100 hours per year	
IA1.031	Emergency generators	
IA1.032	Nitric Acid (HNO₃) and Sulfuric Acid (H₂SO₄) storage and mixing tanks	
IA1.033	Anti-scalent storage tanks – with maximum storage capacity < 5,000 gallons	
IA1.034	Meikle Mine air refrigeration plant	
IA1.035	Potable water treatment systems	
IA1.036	Rotating biological contractor sewer systems	
IA1.037	Underground mixing plant (Backfill Plant)	
IA1.038	Magnesium sulfate (MgSO <sub>4</sub> ) mix tanks (water treatment plant)	
IA1.039	Milk of Lime storage tank (water treatment plant)	
IA1.040	210' clarifiers, emergency/storm water storage pond (water treatment plant)	
IA1.041	Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ) storage tank (water treatment plant)	
IA1.042	Roaster neutralization tanks	
IA1.043 IA1.044	Roaster thickener tank Tanks and thickeners associated with the Sulfur Dioxide (SO <sub>2</sub> ) scrubbing solution regeneration process (Roasters)	
IA1.044 IA1.045	Tanks and thickeners associated with the Sulfur Dioxide (SO <sub>2</sub> ) scrubbing solution regeneration process (Roasters)  Tanks and a mercury electrowinning cell associated with the mercury scrubbing solution regeneration and mercury recovery process	
17(1.040	(Roasters)	
IA1.046	Polymer storage and handling (Roasters)	
IA1.040	Pressurized propane storage tank (Roasters)	
IA1.048	Ammonium Hydroxide (NH <sub>4</sub> OH) solution storage tank (Roasters)	
IA1.049	Volatile Organic Liguid storage tanks – maximum storage capacity < 10,567 gallons (Roasters)	
IA1.050	Sodium Cyanide (NaCn) solution storage tanks (Roasters)	
IA1.051	Volatile Inorganic Liquid storage tanks containing: sulfuric acid, ammonium bisulfate, copper sulfate, ammonium nitrate and sodium	
	hydrosulfide – maximum storage capacity < 40,000 gallons, with corresponding true vapor pressure < 0.6 psig; and maximum storage	
	capacity <200,000 gallons, with corresponding true vapor pressure < 0.13 psig (Roasters)	
IA1.052	Meikle and Autoclave cooling towers	
IA1.053	Prill Silos	
IA1.054	Mine analytical/metallurgical lab fume hoods	
IA1.055	Non-road engines (welders, compressors, hydro-blasters, mobile lights, generators, pumps, etc.)	

Note: The equipments listed on this attachment are subject to all applicable requirements of the NAC and ASIP.